# The Mining Journal,

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1568.—Vol. XXXV. LONDON, SATURDAY, SEPTEMBER 9, 1865. {STAMPED.....SIXPENCE. UNSTAMPED..FIVEPENCE.


### Mining Exchange, London.

MINING EXCHANGE, LONDON.—With a view of correcting the evil resulting from parties advertising mining shares at fixed prices and declining to deliver the same, of which frequent complaints have been brought before the Committee, at a meeting of the members, held on Tuesday, the 18th inst., the following resolution was passed, and is in operation from this date:—"That no MEMBER of the MINING EXCHANGE shall be allowed, directly or indirectly to advertise shares at fixed prices, under pain of suspension."

Mining Exchange, London, July 18, 1865. W. E. JOHNSON, Sec.

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MR. JAMES CROFTS, SHAREBROKER, No. 1, FINCH LANE, CORNHILL. (Established 22 years.)

Mr. CROFTS offers the FOLLOWING SHARES FOR SALE and IMMEDIATE DELIVERY, all calls paid, and nett money:—3 Great Laxey, £22½; 100 Great South Chiverton, 5s. 9d.; 5 Bryntail, 20s.; 250 Prince of Wales, 1s. 8d.; 55 Cefn Cilcen, 7s.; 30 Ilogan, 6s. 6d.; 25 East Rosewarne, £2⅝; 38 North Robert (an offer); 35 Wheal Harriett, 5s. 6d.; 2 Clifford, £20; 10 Chiverton, £8¼; 65 Bedol-Aur, 12s. 6d.; 30 Rosewarne Consols (mine improved), 14s.; 20 Rosewarne United, 30s.; 5 Wheal Margaret, £4½; 50 Grylis Florence; 25 North Wheal Basset, 19s.; 30 East Carn Brea, £6½; 100 Wheal Lovell, £2½; 10 Mary Ann, £7½; 15 Great Wheal Fortune, £2½; 10 Trewetha, 12s. 6d. (call 20s. paid); 20 East Agar, 31s. 6d.; 5 New Rosewarne, £5¾; 10 South Carn Brea, 8s. 6d.; 10 Wheal Edward, 8s. 6d.; 2 West Stray Park, 11s.; 50 Tolvaddon, 9s. 6d.; 50 East Providence, 10s. 9d.; 25 New Lovell, 16s. 6d.

*** SHARES AT NOMINAL VALUES negociated in exchange for stocks of undoubted merit, dividend or progressive, and ADVICE given as to the disposal of worthless mining or other shares.

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MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

JAMES LANE has FOR SALE at nett prices:—2 Basset and Grylis; 5 Buller, £30; 20 Carn Camborne, 23s. 3d.; 10 Chiverton, £8¾; 20 Dale, 5s. 3d.; 20 East Lovell, £14; 20 Drake Walls, 14s.; 20 East Russell, £5½; 50 East Jane, 9s. 6d.; 10 East Caradon, £12⅝; 10 East Carn Brea, £6¾; 30 East Rosewarne, £3; 10 Frank Mills, £8¾; 25 Frontino and Bolivia, £3¾; 20 Great North Downs, 36s.; 40 Great Busy, £3¼; 50 Great North Laxey, 35s.; 5 Great Vor, £35; 50 Grylis Wheal Florence, 5s. 6d.; 20 Hallenbeagle, £2¾; 15 Ludcott, 8s. 6d.; 50 Lady Bertha, 10s. 6d.; 8 Long Rake, 16s. 6d.; 20 Marke Valley, £4; 50 New Martha, 17s. 6d.; 10 North Treskerby, £2½; 50 North Jane, 8s. 6d.; 25 Prosper United, 38s.; 10 Port Phillip, 20s.; 150 Prince of Wales, 1s. 10d.; 20 Rosewarne Consols, 14s.; 25 South Lovell, £2½; 20 Tolvaddon; 10 Trencrom, £3¾.

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MR. WILLIAM LELEAN (Member of the Mining Exchange), has FOR SALE the FOLLOWING SHARES:—

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| 40 Bedol-Aur. | 15 Gonamena. | 20 Snaefell. |
| 60 Bottle Hill. | 5 Great Vor. | 30 South Condurrow. |
| 25 Camborne Vean. | 50 Great So. Chiverton. | 20 South Darren. |
| 50 Castell Carn Dochan. | 10 Great Busy. | 5 Stray Park. |
| 1 Condurrow. | 5 Hingston Down. | 25 Tolvadden. |
| 15 Clifford Amalgamated. | 5 Hallenbeagle. | 5 West Caradon. |
| 15 Chiverton Moor. | 130 Lady Bertha. | 1 Wheal Basset. |
| 15 East Carn Brea. | 5 Mary Ann. | 50 Wheal Unity. |
| 25 East Grenville. | 15 North Crofty. | 15 Wheal Crebor. |
| 25 East Rosewarne. | 5 North Treskerby. | 30 Wheal Grenville. |
| 20 East Russell. | 10 North Basset. | 2 West Chiverton. |
| 5 East Caradon. | 20 North Shepherds. | 5 Wheal Buller. |
| 10 East Lovell. | 5 North Roskear. | 5 Wheal Trelawny. |
| 25 East Providence. | 40 North Minera. | 15 Wheal Chiverton. |
| 10 Fowey Consols. | 10 North Chiverton. | 15 West Basset. |
| 15 Frank Mills. | 2 Providence. | 40 Wheal Edward. |
| 5 Great Laxey. | 20 Rosewarne United. | 1 Wheal Seton. |
| 25 Great North Laxey. | 25 Rosewarne Consols. | |

WANTED TO PURCHASE:—Great Laxey (old and new shares), Reinnie Laxey, Rosafell, North Basset, Chiverton, West Chiverton, and Great North Laxey.

Mr. LELEAN BUYS and SELLS all descriptions of ENGLISH and FOREIGN STOCKS and SHARES, INSPECTS MINES, and TRANSACTS all the usual BUSINESS of a STOCK and SHAREDEALER, and parties may rely upon him for sound advice and punctuality in all his engagements.

Mr. LELEAN refers his correspondents to his remarks in p. 584 of this day's Journal.

N.B.—SPECIALLY RECOMMENDED, the immediate purchase of Great Laxey, Reinnie Laxey, Rosewarne Consols, Mandlin, Great South Chiverton, West Chiverton, Wheal Chiverton, North Minera, North Basset, and Snaefell.

Bankers: Messrs. Robarts, Lubbock, and Co.

Offices, 11, Royal Exchange, London, E.C.

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MR. WILLIAM LELEAN'S STOCK, SHARE, AND FINANCE REGISTER (August number was published on Tuesday, the 15th ult.), should be consulted by all who wish to make safe and profitable investments, giving from 10 to 15 per cent., or to review the state of the market for the preceding 30 days. Single copies, 6d. each; annual subscription, 5s. Published monthly. 11, Royal Exchange, E.C.

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WILLIAM SEWARD, 19, THROGMORTON STREET, LONDON, E.C.

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MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

Mr. THOMPSON being intimately acquainted with the LAXEY DISTRICT, in the Isle of Man, and its various mines, and continually receiving private and valuable information respecting them, will be happy to communicate with anyone thinking of making an investment in the mines of this district.

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GEORGE RICE, SHAREDEALER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON (23 years' experience), Member of the Mining Exchange.

GEORGE RICE having recently returned from the mining districts of Cornwall and Devon, is well prepared to advise his clients what shares to buy or sell.

Money advanced on mining shares.

Sept. 8, 1865. Bankers: Bank of London.

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MR. G. D. SANDY, SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C. (Member of the Mining Exchange).

Mr. SANDY specially recommends Rosewarne United, East Vor, Lady Bertha, West Caradon, Kelly Bray, North Treskerby, North Dolcoath, Godolphin Hill, and West Great Work, as an early advance in the prices is certain.

Correct Daily Price List issued gratis on application.

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MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 11 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

| | | |
|---|---|---|
| 10 Grambler, 31s. 6d. | | |
| 25 Grenville, £2½. | 40 East Grenville, £2¼. | 25 East Rosewarne, £2½. |
| 15 So. Treskerby, 43s. 9d. | 100 South Grenville, 1s. 6d. | 50 North Downs, 2s. |
| 7 New Rosewarne, £3¼. | 35 Drake Walls, 14s. 9d. | 5 Caradon Consols, 7s 6d. |
| 50 No. Dolcoath, 9s. 6d. | 50 Trewetha (offer). | 50 Tolvadden, 8s. |
| 10 Frank Mills, £8 13s 9d | 30 St. Day United, 12s. | 10 North Shepherds, £4. |
| 10 E. Carn Brea, £5 17 6 | 50 Lady Bertha, 9s. 6d. | 40 Bottle Hill, 13s. 6d. |
| 20 Rosewarne Cons., 11s 3d | 15 Hallenbeagle, £2⅝. | 15 Rosewarne United, 25s. |
| 10 Great Busy, £3 3s. 9d. | 25 North Basset, 17s. 6d. | 10 Vigra and Clogau, £7½ |
| 30 Great Fortune, 39s. | 5 Great Laxey. | 60 Great No. Laxey, 33s 9d |
| 5 Trelyon Consols, 14s. | 30 Prosper United, 21s 3d. | 35 Reinnie Laxey. |
| 45 Harriett, 5s. 3d. | 10 Margery, 15s. | 3 Providence, £31¾ |
| | 20 Ludcott, 5s. 3d. | 30 Union, 5s. |

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JOHN RISLEY, 32, LOMBARD STREET, LONDON, E.C., is a BUYER of—

| | | |
|---|---|---|
| Great Wheal Vor. | | Wheal Crebor. |
| Pawsen. | North Dolcoath. | Wheal Buller. |
| Stray Park. | East Wheal Russell. | West Caradon. |
| | Copper Hill. | Condurrow. |

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MR. WALTER TREGELLAS, 3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C., continues to deal at close market prices in all good sound dividend and progressive mines.

W. TREGELLAS has BUSINESS in the FOLLOWING MINES:—Frontino and Bolivia Gold, Santa Barbara, Don Pedro North del Rey, East del Rey, Great Wheal Vor, North Shepherds, Wheal Mary Ann.

An OFFER WANTED for 40 Wheal Ludcott shares.

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MR. GEORGE BUDGE, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 18 years), has FOR SALE:—50 United Mexican; 50 South Callington, 36s. 6d.; 10 Chiverton; 100 Okel Tor, 10s. 6d.; Clifford; 150 Molland, 1s. 9d.; 100 Prince of Wales, 1s. 9d.; 1 South Caradon; 2 Minera, £190; 60 Vale of Towy, 2s.; 25 Cashwell, 35s.; 50 Lady Bertha, 12s.; 25 East Rosewarne, £2⅞; 60 Wheal Harriett, 4s. 6d.; 10 East Carn Brea; 25 Sithney Metal, £1¼; 30 Roskearnoweth, 12s. 6d.; 30 North Chiverton; 40 Great North Laxey; 50 Wheal Crebor, 42s.; 100 Wheal Unity, 3s. 6d.; 50 Tolvaddon, 7s. 6d.; 20 North Basset, 18s. 6d.; 5 West Caradon; 200 Dale; 5 Frank Mills; 100 Don Pedro, 9s.; 100 Anglo-Brazilian, 7s.; 20 Great Busy.

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STOCK EXCHANGE SECURITIES.

| | | |
|---|---|---|
| Railways. | Banks. | English Funds. |
| Financial. | Foreign Funds. | Discount. |
| Steamship. | Loan. | Docks. |
| Ironworks. | Gas. | Water Works. |
| Insurance. | Telegraph. | Hotel. |
| Marine Insurance. | Land. | Irrigation. |
| Foreign Mines. | Cornish Mines. | Devon's Mines. |

And other public companies.

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MR. PETER WATSON, STOCK AND SHAREDEALER, begs to state that every information respecting any of the above companies may be had on personal application, or by letter, as to PURCHASES and SALES, with advice as to the most desirable investments.

From the close proximity of his offices to the Stock Exchange, and also the Mining Exchange, he is enabled to act with promptitude on all orders entrusted to him in the PURCHASE or SALE of every description of stocks or shares, at nett prices for cash or fortnightly settlements.

TELEGRAPHIC MESSAGES of customers to BUY or SELL in any of the above companies punctually attended to, at nett prices for cash or half-monthly settlements, at the closest posible market prices of the day.

Twenty years' experience.

(Two in Cornwall and Eighteen in London.)

Bankers: The Union Bank of London, and the Alliance Bank.

The present is an unusually favourable period for the investment of capital.

A SELECTED LIST of Railways, Banks, Financial, Foreign Funds, Steamships, Foreign and Cornish and Devon Mines, &c., sent on application, with special recommendations as to investments, &c., on the distinct understanding that any business resulting through his information or advice may be done through him.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London, E.C.

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EDWARD COOKE, SHAREDEALER, 2, CROWN CHAMBERS, THREADNEEDLE STREET, AND MINING EXCHANGE, LONDON, E.C.

EDWARD COOKE deals at close prices in railway, bank, and other securities usually dealt in on the Stock Exchange, and satisfactory references given in any town in the United Kingdom if required.

Sept. 8, 1865. Bankers: Alliance Bank, Lothbury.

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MR. A. G. McNEILL, STOCK AND SHAREDEALER, 48, THREADNEEDLE STREET, LONDON, E.C. Bankers: Alliance Bank.

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WILLIAM WARD, 29, THREADNEEDLE STREET, LONDON, E.C. Is a BUYER of Wheal Lovell shares. Sellers to state number and lowest price.

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HARRIS AND CO., STOCK AND SHAREBROKERS, AND FINANCIAL AGENTS, 15, GEORGE STREET, MANSION HOUSE, LONDON, E.C.

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JOHN GREEN, MINING OFFICES, 9, GRACECHURCH STREET, LONDON, E.C. ESTABLISHED SIX YEARS.

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JAMES HUME, 74, OLD BROAD STREET, LONDON, E.C. (Member of the Mining Exchange). Bankers: The London Joint-Stock Bank.

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NOTICE OF REMOVAL.

MESSRS. WARD AND JACKMAN, STOCK AND SHAREDEALERS, have REMOVED from 2, Adam's-court to No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.

Members of the Mining Exchange.—Bankers: London and Westminster, Lothbury.

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MR. E. GOMPERS, MINING OFFICES, 3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C. BUSINESS TRANSACTED in BRITISH and FOREIGN STOCKS and SHARES. Terms, 1½ per cent.

Bankers: London and Westminster Bank.

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MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C., has BUSINESS to TRANSACT in the FOLLOWING SHARES, at close market prices:—

| | | |
|---|---|---|
| Bedford United. | Great Laxey. | Wheal Edward. |
| Bedford Consolz. | Kelly Bray. | Wheal Grylis. |
| Clifford Amalgamated. | Lady Bertha. | Wheal Rose. |
| East Lovell. | North Downs. | Frontino and Bolivia. |
| Gawton United. | Wheal Union. | East Basset. |
| Great North Downs. | North Pool. | Great Fortune. |
| Great Wheal Busy. | North Shepherds. | Marke Valley. |

T. ROSEWARNE can recommend six mines certain to pay cent. per cent. in a few months.

T. ROSEWARNE, from his own practical experience, and the weekly reports of his agents in Devon and Cornwall, is enabled to give sound advice to parties about to operate.

Sept. 8, 1865. Bankers: Bank of London.

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MATTHEW GREENE, STOCK AND SHAREDEALER, 9, GRACECHURCH STREET, LONDON, has the FOLLOWING SHARES FOR SALE:—

| | | |
|---|---|---|
| | 20 St. Day United, 13s. | 10 East Laxey, 25s. |
| 50 Tolvadden, 9s. | 20 Fron. & Bolivia, £3¾. | 10 East Snaefell, 25s. |
| 50 North Dolcoath, 11s. | 20 Reinnie Laxey, £4½. | 30 West Gt. Work, 15s. 6d. |
| 10 East Carn Brea, £6. | 10 North Shepherds, £4. | (all calls paid). |

M. GREENE is in a position to recommend for investment some dividend and progressive mines that are certain for a good rise.

Reinnie Laxey and Clifford Amalgamated shares should be bought at once.

M. GREENE'S Daily Mining Share Price List, in time for the evening mails (closing prices up to Four o'clock), post free on application.

M. GREENE intends visiting the Isle of Man next week for the purpose of inspecting the mines in the Great Laxey district, and will be happy to afford his clients and correspondents all the information he can glean.

Bankers: Imperial Bank.

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GREAT WHEAL VOR.—The present state of the market for these shares proves the soundness of my advice (given some months since) to buy at £30. My Circular issued last June is still in print, and can be obtained from me on payment of 2s. 6d. per copy; it will be found particularly useful to the holders of the stock. JNO. B. REYNOLDS.

3, Crown-court, Old Broad-street, London, E.C., Sept. 9, 1865.

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SOUTH CALLINGTON.—The attention of the public is respectfully called to the merits of this property, and I strongly advise the purchase of the stock, feeling assured that the mine gives promise of great success. The fullest information on every point can be obtained on application to me. No time should be lost in making the investment. (See report.) JNO. B. REYNOLDS.

3, Crown-court, Old Broad-street, London, E.C., Sept. 9, 1865.

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MR. J. B. REYNOLDS, 3, CROWN COURT, OLD BROAD STREET, LONDON, E.C., continues to transact business in mining shares and other securities dealt in on the Stock Exchange, and considers every communication addressed to him as being in the strictest confidence. He advises as to what should be bought, sold, and avoided. He requests his clients to be as definite as possible in their communications. Mr. REYNOLDS has business in—

| | | |
|---|---|---|
| Chiverton Moor. | East Caradon. | Rosewarne United. |
| East Lovell. | Great Vor. | South Callington. |
| El Chico. | Great North Laxey. | West Great Work. |
| East Grylis. | North Dolcoath. | Wheal Grylis. |
| Sept. 9, 1865. | North Chiverton. | &c., &c. |

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MR. GEORGE BATTERS strongly recommends his friends to buy West Chiverton, Chiverton, Herodsfoot, South Caradon, Devon Great Consols, Great Wheal Vor, Wentworth Consols, and Sithney Wheal Metal for investment. These shares will pay good interest for money at present quotations.

Advertisements have recently been inserted in the columns of the MINING JOURNAL by dealers who, having sold shares for forward delivery, endeavour to frighten timid holders in order to possess themselves of their shares to fulfil their contracts; this system has been adopted particularly against Great Wheal Vor, West Chiverton, and Chiverton shares, and I caution my friends against parting with their property, or giving credence to the unfounded assertions of interested parties.—76, Old Broad-street, London, E.C.

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BRITISH AND FOREIGN INVESTMENT.—MR. THOMAS SPARGO, 224, and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., TRANSACTS EVERY DESCRIPTION of BUSINESS in the PURCHASE and SALE of SHARES in BANKS, CANALS, MINES, RAILWAYS, BRIDGES, INSURANCES, and ALL OTHER DESCRIPTIONS of BRITISH and FOREIGN STOCK.

Mr. SPARGO has 20 years' experience of mining, ten of which he was engaged in practical mining, and ten years he has transacted business in mining shares and stock, at 224 and 225, Gresham House, Old Broad-street, City, E.C.

Bankers Bank of London.

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MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER, 6, NEW BROAD STREET, LONDON.

THE ALLT-Y-CRIB LEAD MINE, CARDIGANSHIRE.

MR. T. P. THOMAS has been favoured with instructions by the liquidator to SELL BY PUBLIC AUCTION, at Garraway's Coffee-house, Change-alley, Cornhill, London, on Tuesday, the 19th day of September next, at One o'clock, in One Lot, and subject to the conditions which will be produced at the sale, all that VALUABLE LEAD MINE and SETT, known as the ALLT-Y-CRIB MINE, situate at Talybont, Cardiganshire, seven miles from Aberystwith, together with the BUILDINGS, MACHINERY, &c., forming the whole of the plant and property of the Allt-y-Crib Mining Company (Limited) in, upon, and belonging to the said mine, comprising amongst other things a powerful WATER WHEEL, 29 ft. diameter, with 5-ft. breast, dressing machinery, and the necessary means and appliances for immediately continuing the works.—Full particulars and conditions of sale may be had on application to the Liquidator, Mr. THEODORE PAUL, Aberystwith, or to the Auctioneer, 6 New Broad-street, London.

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MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 6, NEW BROAD STREET, LONDON, E.C.

GODOLPHIN HILL.—MR. T. E. W. THOMAS has interested himself in the progress of the development of this mine, and from personal inspections that he has made during the last two years can, with great confidence and much pleasure, recommend the shares to the investing public on the merits of the property as it now is, but mostly upon the prospects for the future, wherein he anticipates a quick increase in the profits of what is even now a remunerative mine.

Mr. THOMAS, in recommending this mine as a well-managed and good Cornish mining property, desires those who might contemplate a large investment to have the mine inspected by a practical mine manager—the services of any of whom can be had at from two to four guineas—before doing so.

To intending investors, Mr. THOMAS will supply copies of reports and all further and minute particulars upon requirement.

Mr. THOMAS daily transacts business in the shares, the present price being 25s. to 30s.

6, New Broad-street, London, September 8, 1865.

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MR. FRANCIS G. LANE, No. 2, ROYAL EXCHANGE, and one of the first subscribers to the Mining Exchange, having every confidence that the public appreciate the system of advertising prices to the shares they have for sale, on principle objected to the resolution passed at a late meeting of the members of the Mining Exchange. Should, however, the same be confirmed, I appeal to my clients for a continuance of that support which they have hitherto favoured me with, and for which I have no reason, and I believe they also, to regret, and if continued I shall tender my resignation as a member of the Exchange, and advertise shares as before at fixed prices, trusting that my connection of over 15 years with the management of mines and the market, my large dealings and extensive connection, also the regularity in which all engagements have been carried out, both with the public and members of the Exchange, will be the means of securing my share of public support. My office being in the most central part of the City, is used as a register for all stocks and shares that for the moment may not be immediately marketable. Sellers of such stock by that means frequently meet with a ready sale, and buyers effect a great saving in commission and amount paid for stock.

The following shares, being a portion of the lot advertised in the Journal of the 15th July, are still for sale at prices therein quoted, free of commission:—

| | | |
|---|---|---|
| 10 Bryn Gwiog. | 55 New Martha. | 50 Snaefell (£1 fully paid). |
| 20 Bedford United. | 20 North Minera, bearing 20 per cent. preferential dividend (15s. paid). | 40 St. Day United. |
| 40 Carn Camborne. | | 25 St. Just United. |
| 50 Cape Corn. (35s. paid). | | 50 West Wheal Vor. |
| 50 Drake Walls. | | 50 Wheal Crebor. |
| 25 East Carn Brea. | 20 North Phœnix. | 50 Worthing. |
| 10 Great Wheal Busy. | 20 North Frances. | 30 Wheal Union. |
| 20 Grylis Florence. | 50 North Treskerby. | |

Advances made on mining shares.

Parties wishing to dispose of their interest in mines will do well to communicate with the advertiser, who is at all times in a position to purchase for cash.

Parties of respectability can have transfers registered into their names previous to payment. Bankers: London and County Bank.

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MR. FREDERICK WILLIAM MANSELL, STOCK AND MINING SHAREDEALER, 26, THROGMORTON STREET, AND MINING EXCHANGE, LONDON. Bankers: London Joint-Stock Bank.

Mr. MANSELL, having now returned from visiting the mines of Cornwall, strongly recommends his friends to purchase the following shares, feeling assured that by so doing they will reap great advantage. Mr. MANSELL is in possession of special information respecting these mines, which may be had on application, personally or by letter:

| | | |
|---|---|---|
| East Carn Brea. | North Treskerby. | East Lovell. |
| Wheal Kitty (Lelant). | East Basset. | North Basset. |
| South Crofty. | South Condurrow. | Hallenbeagle. |
| West Vor. | Wheal Ida. Nangiles. | Marke Valley. |

*** There are several mines at the present time which should be immediately sold, having nothing to look forward to but heavy calls, without the slightest chance of any remunerative returns to the shareholders.

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JOSEPH J. REYNOLDS, JUN., 18, UNION COURT, OLD BROAD STREET, LONDON, E.C.

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WILLIAM BARTLETT, No. 2, BUCKLERSBURY, and MINING EXCHANGE, LONDON, E.C.

SHARES FOR SALE at fair market prices, and free of commission:—25 North Treskerby, 5 Clifford, 5 Nangiles, 5 North Basset, 10 Chiverton, 10 East Lovell, and 50 East Chiverton. Business done for cash or for the fortnightly settlement.

Bankers: Alliance Bank.

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WHEAL JANE MINE.—WANTED TO PURCHASE, a FEW SHARES, for cash. Sellers will please state number and lowest price to WILLIAM BARTLETT, Sharedealer, No. 2, Bucklersbury, London, E.C.

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EAST BASSET.—WANTED TO PURCHASE, a FEW SHARES, for cash. Sellers will please state number and lowest price to WILLIAM BARTLETT, Sharedealer, No. 2, Bucklersbury, London, E.C.

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NOTICE OF REMOVAL.

MR. J. P. ENDEAN, MINE AND GENERAL SHARE DEALER has REMOVED from 1, Crown-court, Old Broad-street, to more extensive and convenient offices, at 5, FINSBURY CHAMBERS, LONDON WALL, opposite Great Winchester-street.—June 30, 1865.

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MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C., recommends for immediate purchase Chiverton shares. Being now at a very low price, a great rise may immediately be expected. Full particulars on application.

SPECIAL BUSINESS in British Slate Company.

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TWO RAILWAY BONDS (of £500 each, secured on a first-class Line), FOR SALE, to pay Ten per cent.—Full particulars of Messrs. BARRETT and Co., 9, Spring-gardens, Charing-cross, where their "Monthly Review of Railway and Mining Securities" can be had on application.

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WANTED, a GOOD TIN AND COPPER MINE SETT in WEST CORNWALL. Price must be low.—Apply to "Mine Sett," MINING JOURNAL office, 26, Fleet-street, London.

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MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

MINES INSPECTED and faithfully REPORTED ON. DEALER in MINING, RAILWAY, and OTHER SHARES.

His monthly Circular forwarded on receipt of six postage stamps.

Criddis Mine, St. Issey, Padstow, Cornwall.

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ROBERT LIBBY AND SON, MINE AND SHAREDEALERS, &c., CAMBORNE, CORNWALL.

The undermentioned mines we would at once advise capitalists to speculate in—

| | | |
|---|---|---|
| Wheal Trannack. | West Great Work. | North Dolcoath. |
| East Lovell. | Rosewarne United. | Grylis Wheal Florence. |
| | Leeds and St. Aubyn. | |

N.B.—Parties wishing information of any mine in Cornwall can obtain it by applying to R. LIBBY and SON.

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THE INVESTMENT, LOAN, AND FINANCE AGENCY undertakes the sale and purchase of Public Securities, and affords reliable information to Capitalists who seek permanent Investments, or the temporary employment of money, to the safest and best advantage.

The Loan and Finance Department includes Money Agency generally, Loans, Deposits &c., and advances are negotiated on Public Securities having a market value.

The same uniform system of strict attention is paid to transactions of small as well as of large amounts, the object being to embrace the business of every class of Investors.

CHARLES PETERS, Secretary.

Offices, 12, Clement's-lane Lombard-street, London, E.C.

# Original Correspondence.

## GUNPOWDER SUPERSEDED—NEW BLASTING OIL.

SIR,—As the London representative of Mr. A. Nobel, you will permit me to reply to the adverse reference made in last week's *Mining Journal* to his new blasting oil, which I anticipate will, at no distant period, be very largely used in place of blasting-powder, since it has been ascertained by experience that 1 lb. of blasting oil is equal in its effect to 10 lbs. of gunpowder; whilst the circumstance that only one-tenth of the boring is necessary with blasting oil, compared with that required when gunpowder is used, the superior economy of the blasting oil is self-evident. In pits where immense quantities cannot be taken out by one bore, the saving of labour is comparatively smaller, though still very considerable.

In your report of the proceedings at Falmouth it is stated that "an exhibition took place which showed the explosive character of Nobel's (Hamburg) patent blasting oil (nitro-glycerine). A hole bored 7 ft. deep, with a good burden before it, was charged with 4 ozs. of the blasting oil, placed in a tin tube, and lighted by means of an ordinary fuse, at the end of which was detonating powder, which ignited the glycerine. The result was a moderately loud report, and the whole of the ground in front of the hole was thoroughly moved and shaken. The cost of the glycerine is 3s. per lb., and it appeared as if gunpowder to the same amount would have done the work equally as well. A very small quantity was then inserted in the middle of an old anvil, and shattered it to pieces. The operation of blasting was performed by pouring the glycerine into the narrow tin tube, which was stopped at one end by a long taper wooden plug, through which the fuse passed and ignited the glycerine by communicating with the detonating powder at the end. The tamping is sometimes sand and sometimes water. In the case of water being used, there is no danger of its interfering with the detonating powder, inasmuch as being only half the weight of glycerine it always remains above it." Besides this, one of your correspondents, subscribing himself "Miner," enquires the relative gross cost, and expresses the opinion that "a liquid would be an awkward material to blast with, especially when the rock is fissury or absorbent."

The liquid is by no means an awkward material to blast with, it having merely to be poured in, and water poured upon it. The number of leaky bore-holes is comparatively small, and they are easily tightened with wet clay. The fact that water-carrying holes require no tightening more than compensates the above inconvenience; it is, moreover, always better to tighten absorbent holes for gunpowder, to prevent the leakage of gas, which greatly diminishes the effect. With reference to the above extract of report I beg to say that it is entirely deficient. The charge of 4 ozs. in the 4-feet bore not only did no more than gunpowder would have done; it did nothing at all, as it completely missed fire, owing, probably, to the fuse. The other bores, however, did immense execution: one hole, 7 feet deep, bored vertically into a perfectly level rock, threw up a complete crater, which the heaviest charge of gunpowder could scarcely have effected.

With regard to the relative cost, a given work that would require 100 ft. of boring, at 4d. per foot=1*l.* 13s. 4d.; and 15 lbs. of gunpowder, at 5d. = 6s. 3d.; together, 1*l.* 19s. 7d., could be done if nitro-glycerine were used with 10 ft. of boring=3s. 4d.; and 1½ lb. of nitro-glycerine, at 3s. =4s. 6d.; together, 7s. 10d., showing that the cost with nitro-glycerine is less than one-fifth. As to the general value of the blasting oil, I will only state that the judges of the Royal Cornwall Polytechnic Society have reported that they "consider Mr. Nobel's nitro-glycerine a very valuable explosive agent, possessing enormous power, and, in addition, the great advantage of not exploding except when confined. The small space which it occupies in proportion to its power renders it necessary to drive only one hole for the removal of immense masses of rock, thereby effecting great saving of labour." They have, moreover, awarded to Mr. Nobel a first silver medal of the Society. C. F. CUSEL.

64, *Wood-street, Sept.* 6.

## THE GEOLOGY OF GREAT BRITAIN.

SIR,—The first dry land which appeared in English waters were Wales and Cumberland, which would form two islands in the midst of the sea. These islands were afterwards joined together, and connected with Scotland, by the subsidence of the waters, which left the carboniferous rocks bare. After the appearance of the mountain lime and coal, the waters again subside, and the New Red Sandstone appears, which greatly extends the borders of England. Once more the waters subside, and the lias, oolite, greensand, and chalk in rapid succession appear. England is completed by the London Clay, which like the other rocks is added to *terra firma* by the subsidence of the waters.

The rocks of Great Britain are distributed as follows. The figures denote the number of square miles of each rock:—

| | England. | Scotland. | Ireland. |
|---|---|---|---|
| Drift | 1,000 | — | — |
| London Clay | 3,000 | — | — |
| Chalk | 6,000 | — | — |
| Green Sand | 2,000 | — | — |
| Oolite | 7,000 | — | — |
| Lias | 2,000 | — | — |
| New Red Sandstone | 10,000 | — | 1,000 |
| Coal | 10,000 | 3,000 | 2,000 |
| Mountain Limestone | 1,000 | — | 11,000 |
| Devonian | 6,000 | 4,000 | 1,000 |
| Silurian | 10,000 | 6,000 | 6,000 |
| Mica Slate | — | 14,000 | 6,000 |
| Trap | 1,000 | 2,000 | 1,000 |
| Granite | 1,000 | 1,000 | 2,000 |
| Total | 60,000 | 30,000 | 30,000 |

It will be observed that, with the exception of the Mica Slate series, England possesses a fair proportion of all the rocks to be found on the face of the globe. For that reason there can be no better country where the study of geology can be carried on; indeed, I question if there is any other country which offers such great facilities as England does.

In Great Britain there are no less than 3200 collieries at work, producing 90,000,000 tons of coal per annum, which is more than double the produce of all the rest of the world put together. This fact, which is almost incredible, not only proves the natural superiority of England in mineral riches, but that she is before all other nations in the art of developing her resources. It has been said that the United States will some day surpass England as a manufacturing country, but this is not at all probable. Although America can boast of a large area of coal, she is only sparingly supplied with that description suitable for raising steam or for household purposes, most of it being blind or stone coal. The high price of coal in America is a sufficient proof of her want of good coal fields, for if she had these in abundance she would not be so ill supplied with the first necessary for manufacturing prosperity.

There is no doubt that the coal which lies at no great depth is being rapidly exhausted; but when we compare the small number of acres which have been worked with the immense area which remains to be worked we become convinced that our coal fields are practically inexhaustible. To enable us to work the deeper mines, which at present prices would not pay, two things must happen—first, the price of coal must rise in the market; and, second, improvements must be made on the present mode of raising the coal and water to the surface, in ventilating the mines, and in conveying the workmen up and down the shafts.

While improvements have been going on in the arts, no corresponding progress has been made in mining. The reason of this has been the abundance of coal near the surface, which could be raised profitably without the adoption of scientific improvements; but as these easily-worked portions of coal are now disappearing, better modes of working must be adopted. A patent has lately been taken out for raising coal and thoroughly ventilating the mines at the same time. (Patent 2007, 1864.) The power used is compressed air, upon the same principle as the pneumatic tube lately introduced in London for conveying the mails under the streets. This improvement is well worthy of the attention of Lord Kinnaird, who is to introduce a Bill next session on the subject. I hope this invention may be adopted by the Government, and come into general use, for coal mining as now practised is far behind the age, not only causing a great loss of life and limb, but materially enhancing the price of coal all over the kingdom—an evil which is constantly increasing.

Scotland is destitute of the later formations so largely developed in England. She has no London clay, no chalk, no lias, and no New Red Sandstone. Scotland was not submerged for nearly so long a period as England was; she, consequently, did not receive the new deposits. She may be described as much poorer in minerals than England.

In the South of Scotland, from Wigtonshire, across the island to Berwickshire, there is a vast development of Silurian rocks, with some granite in Kirkcudbrightshire. The valleys of the Forth and Clyde are occupied by the coal formation, mixed with patches of Old Red Sandstone and trap. On the north of the coal is a large mass of Old Red Sandstone, reaching across the island, from the Clyde to Aberdeen. To the north of the Old Red Sandstone there is one unbroken mass of mica, slate, and gneiss, mixed with patches of granite and trap. Old Red Sandstone is found on the coast of Caithness, Orkney, and Ross-shire. The North of Scotland was the first appearance of dry land; then came the South, which formed two islands, which were afterwards connected by the coal fields of Edinburgh and Glasgow. Scotland may be considered the best place to study the earliest rocks, and the first beginnings of the world.

Ireland differs considerably both from England and Scotland, and may be described as something between the two. The North of Ireland is mica slate, trap, and granite, with a patch of old Red Sandstone. The South is Old Red Sandstone and Silurian. The West is millstone grit and mica slate, and the East is Silurian, mountain limestone, and granite. The centre is one great mass of mountain limestone, embracing one-third of the entire area of the island. There are patches of coal here and there, but as it is chiefly blind coal these are of no great importance. The leading geological characteristic of Ireland is the great extent of mountain limestone, which is entirely wanting in Scotland, and very scarce in England. Ireland, like Scotland, is wanting in the newer formations. She has no London clay, no chalk, no green sand, no oolite, no lias, and no New Red Sandstone of any consequence. She came to the surface sooner than England did, and is, consequently, devoid of recent deposits. Ireland would originally be three islands, one in the north, another in the east, and another in the west, which would be subsequently consolidated into one island by the shrinking and subsidence of the waters when the limestone was laid bare.

As the soils are derived from the rocks below, the fertility of a district or country may always be pretty accurately judged of from a knowledge of its rocks. Soils are of three kinds—sandy soils, limey soils, and clayey soils. Granite and slate rocks are proverbial for producing poor soils, for they contain little else than silica, while trap, which contains several needful ingredients, gives a rich soil, and where the different rocks producing these are there the soils are best. England may be said to have a greater variety of soils than either Scotland or Ireland, owing to the greater diversity of its rocks. Ireland, however, has a great advantage in having so much limestone, which gives an abundance of rich pasture. Comparison is one of the most powerful instruments we have for arriving at definite conclusions, and when we are in a position not only to compare England with Ireland, but with other countries, we may hope to arrive at something more definite than has hitherto been attempted.

The rotation of the earth is from west to east, which ought to produce a current of air and water in the opposite direction—from east to west. The continents, with their enormous mountain ranges, intercept the natural flow of the atmosphere and the ocean; these, in connection with the rotation, no doubt, cause the equatoral and other currents in the ocean, and the trade winds.

On looking at the map, it will be found that the western coasts of Ireland, England, and Scotland are rugged and precipitous, while the eastern coasts are smooth and sloping. The reason of this is, doubtless, that the western coast was the first-formed dry land; that coast formed a breakwater in the sea, behind which deposition went on uninterruptedly. While the waves of the Atlantic dashed against the precipitate cliffs of the west, the east was protected from currents. The mountain ranges have protected the north seas from the action of the currents, and there the deposits have been made which in process of time became dry land, and such is the probable history of the origin of the British Isles.

72, *Sloane-street, Sept.* 4. A. ALISON.

## THE CORNWALL TRADING COMPANY.

SIR,—I am pleased to find from last week's Journal that a Limited Company is in course of formation for supplying our Cornish mines with materials. It is a well-known fact that for many years great dissatisfaction has existed between the Cornish merchants and London and other mine adventurers, in consequence of the former charging excessive prices for materials of most inferior quality, and the result is that scores of gentlemen from London and elsewhere have been driven from the county in disgust. Let one and all unite and assist in the formation of such a company, when justice will be done, not only to the out adventurers, but to the Cornish shareholders themselves.

A board of directors, partly in London and partly in Truro, could not fail to give satisfaction to all parties. Let them be gentlemen of position and commercial experience, with a manager who has a thorough knowledge of the business generally, and the trade is certain to pay 20 per cent. We say come and be welcome, we will assist. Then those who have left the mining interest will return, and mutual confidence will be restored.—*Sept.* 7. A. B.

## RAILWAY LEGISLATION, AND WELSH RAILWAYS.

SIR,—It must be gratifying to all *bona fide* shareholders in railways to find that a check is at last being put upon the "enterprisers" who derive a livelihood from concocting unnecessary railways, and participating in the booty obtained in a most questionable manner, by pretences anything but true, from widows of limited means and helpless unmarried ladies, who unfortunately place too much confidence in designing and unscrupulous relatives. Complaints are raised against the existing railway companies for not promoting more new railways than they do, but it is but too well known that the public will not subscribe for even the most plausible of those now brought out—I allude, of course, to the local country lines in North and South Wales, Cornwall, the North of England, and such places. And if we ask the reason, we shall find that upon many of the lines proposed it would require almost the whole population along the line to travel night and day to afford the company (?) a sufficient revenue to pay a legitimate dividend of 3 per cent.

But, let it be enquired, who makes the lines? Who made the Carmarthen and Cardigan (so far as it is made)? Who made the Shrewsbury and Welshpool? And who are going to make the Mold and Connah's Quay Railways? Not shareholders, but capitalists, who have been deluded by false representations to entrust their cash (of course, unwittingly) to the enterprisers, for whose sole and especial benefit the lines have been concocted. Let us investigate the history of an enterpriser's line. The enterpriser may be a successful tradesman, who plumes himself on his legal knowledge, and aspires to be a grandee, or a "gentleman" who has been trained to the law, but in consequence of his cultivator's lack of knowledge as to the nature of the plant, got nailed up too slightly, and, therefore, fell to the ground. Now this enterpriser falls upon a piece of ground—a track between two small market towns by preference—much as a vulture falls upon a piece of carrion, and upon the same principle considers that henceforth he is entitled to retain it, and feed upon it as his own.

Next, as to the process of getting up the line. The first step is to find an engineer to survey the line; this is usually a man who, not being overburdened with either money or practice, will gladly undertake the task, in the hope of ultimately becoming engineer of the line, upon the enterpriser providing him with enough money to pay for a bed at night and a couple of meals a day while the survey is going on. The survey being made, the course onwards is, under ordinary circumstances, plain and smooth enough. So far as that particular line is concerned, the engineer and the enterpriser are henceforth inseparably linked together, and they at once set to work to find a speculator to furnish the means of going to Parliament. This is an easy task, as the speculator's prospects being a return of ten times the amount advanced, with, perhaps, an annuity in addition, in the shape of directors' fees, he can well afford losses. By this means the funds are found, and the Act of Parliament authorising the construction of the line is obtained.

So far, the outlay having been exclusively made by speculators who know that they risk at large odds, in the hope of enormous gains, no one is prejudiced; but as soon as the Act of Parliament has been obtained the nefarious practices commence. The prospectus, containing all kinds of exaggerated statements, is issued, but as those in the district know full well, that it is only by some unexpected miracle that the line can be expected to pay, they do not take shares, whilst those out of the district, from, probably, consulting a gazeteer, and finding that the entire district to be served does not contain a population large enough to pay 6d. per 100*l.* upon the estimated cost of the line, follow their example. Now, as no money is obtained from the public, and the promoters are, probably, not worth 100*l.* between them, it would naturally be supposed that the undertaking would of necessity be abandoned. Nonsense. Enterprisers well know that they can go on with a line that requires 500,000*l.*, although the public subscribe nothing, and they and their co-promoters have also nothing. How is it done? The enterpriser finds a contractor who will state that he will make the line, and accept "Lloyd's Bonds" in payment, twice the proper price being paid to remunerate him for the trouble.

What is the use of Lloyd's Bonds of a company without shareholders? None; the unfortunate public have no means of knowing, however, whether there are or are not shareholders, and, seeing the works going on, naturally suppose that shareholders have found some money, and that the Lloyd's Bonds only represent the difference. Little do they think that they alone are finding the funds which are expended by the promoters and directors to supply their private tables with luxuries, and to keep the abortive enterprise in existence. Yet this is literally and actually the fact, and it is this villainous system that stops legitimate industrial enterprise, and effects the ruin of so many harmless, worthy, and enterprising capitalists—men, and women too, who will lend hard cash for a modest 5 per cent. to assist what they are led to believe is a legitimate undertaking, but who are unwilling to enter upon doubtful speculations, even if they promise 50 per cent.

In the recent discussion between Mr. R. S. France, who is just now smarting from having lost a railway bill in Parliament, and the supporters of the Ruabon Coal Company and the officials of the Great Western and North-Western Railways, Mr. France remarks that "the Radstock coal proprietors, when they took legal proceedings to upset this arrangement (he refers to the arrangement by which the Ruabon coal is carried at the same fixed rate per ton per mile as that paid by other colliery owners), one would think, can scarcely have made themselves sufficiently acquainted with the constitution of this Ruabon Coal Company. If they had done so, I think they would, at any rate, have excited the suspicion of the Court, and the remedy they sought would have been ultimately granted. If they had only consulted the documents registered at the Registrar's office, Serjeant's-inn, they would have found Articles of Association with the names of the Great Western directors and officials of high degree attached, and which would have made even the Court stand aghast." Now, for my own part, I do not think our judges are so easily terrified, more especially as the statement of facts already published, argued upon in open Court, and decided by the Court, relate to nothing reflecting upon the railway companies attacked. By a visit to Serjeant's-inn time would be lost, since the information which could be obtained there is only what is already well known. But there is one visit that, if made and reported upon, might be profitable. I allude to A VISIT TO THE STAMP OFFICE. All Lloyd's Bonds must be stamped at the rate of 2s. 6d. per 100*l.*, and if a list were obtained and published of the quantity stamped for each enterpriser, and the names of the company they were stamped for—they cannot be stamped until they are signed by directors, and countersigned by the secretary of the company making them—we should have a record which, although it might not make a Court of Law "stand aghast," would, at least, put the public in possessession of a large number of startling—

*Great Western Hotel, Sept.* 5. FACTS.

## THE PENRHYN AND THE LLANBERRIS QUARRIES.

SIR,—The unfavourable comparison by "An Observer" of the Penrhyn with the Llanberris Quarry is generally considered so entirely unjustifiable, that considerable notice has been taken of it in the district. The strictures of the Llanberris people upon Col. Pennant are very repugnant to the feelings of the enlightened population throughout the county, and more especially of Bangor and its vicinity, where his sterling qualities are so well known and appreciated by all classes. It is universally admitted that the high position, talents, and great wealth which he enjoys have been freely used to promote the prosperity of the neighbourhood in which he resides for so large a portion of the year; the numerous schools for boys and girls; additional church accommodation, with parsonage houses, erected and maintained, at his sole expense, in the villages surrounding the quarry, testify to his anxiety to advance the social position and religious education of the workmen in his employ, and their families; it is the sincere wish of thousands that he may be spared for many years to enjoy, in peace, the fruit of his labour, with vigour of mind to treat such scurrilous criticisms with utter contempt.

The charge that Colonel Pennant's steward and overlookers monopolise the export of slates is as false as it is absurd; for no agent, steward, or overlocker at the Penrhyn Quarries has any more controul over the shipping or the slate trade than the agent at Port Penrhyn has over the wages of the quarrymen. A large number of the shipowners and captains (in fact, all within reach at the moment) have hastened to give their testimony, lest Mr. Wyatt, the Port agent, should be prejudiced by the false statements. They state that no change has taken place at Port Penrhyn recently. The same facilities are now given to vessels as used to be during the last 18 years—as every vessel gets served in its turn, perfectly irrespective of who may happen to be its owner. They know of no single exception to this commendable rule. They feel that, greatly as they respected the impartiality and kindness of Mr. Wyatt, sen., as manager at Port Penrhyn, they cannot but honour more highly those qualities in his son, Mr. Arthur Wyatt, the present agent. They only add that they are perfectly satisfied with the management at Port Penrhyn, and hope that the day is far, very far, distant when Mr. Arthur Wyatt's connection with it is to cease.

A competent writer upon the subject very truly remarks—"Let 'An Observer' go into the churches Col. Pennant has built and is now building, the numerous schools, the quarry hospital; let him also inspect the chapels built upon ground he has given to them, or leased for a mere acknowledgment; let him enquire into the numerous charities he supports. I will then ask him whether his workmen are cared for? All these comforts go in a great measure towards wages, and no doubt are duly appreciated by the men; instead of at some quarries, where they get high wages, and no comforts, but are huddled together in barracks for a week, and as soon as one set get out of bed to relieve work, another set tumble in; and only get to their homes and comfort from Saturday night to Monday morning, after a toil of 10 or 20 miles. After 'An Observer' has inspected the Penrhyn quarryman's comforts, I would ask him what balance the rent-roll would show after deducting these annual voluntary expenditures? Why, nothing. If the quarry were, unfortunately, in the hands of a limited company, where would the expenditure go? Not in the comforts of the men, but into the pockets of others."

"An Observer's" attempt to appear the friend of the working man is positively ridiculous, since it is but too evident that, pecunarily, he is—

*Bangor, Sept.* 4. ONE INTERESTED IN LLANBERIS.

## TERRAS TIN MINING COMPANY, NEAR ST. AUSTELL.

SIR,—Having read a notice of this affair in the *Mining Journal*, and also having received a report referring to the same, and embodying the remarks contained in the paragraph I mention, I was induced to visit the spot, being in the neighbourhood. I am pleased to say the examination I made and the particulars I gleaned are correctly represented in these descriptions. There is a vast lode or elvan dyke, containing tin in the proportion represented. The report of an eminent mining engineer advises the soft portion of the lode to be cross-cut and stamped with the hard portion of it; this has been done, and the advice found correct, as the yield of tin has increased, whilst the reduction of the ore has been facilitated. I learn with some degree of satisfaction that though the present price of tin militates against the adventures, yet this is likely to progress under most influential auspices. I hope soon to see 150 heads of stamps at work, and to participate in the profits from the results.

A SHAREHOLDER IN THE TERRAS COMPANY.

## THE ST. DAVID'S GOLD MINING COMPANY.

SIR,—I see by your report of the meeting of this company, in last week's Journal, that all our hopes in regard to this enterprise are again dashed to the ground. This is a great disappointment, after Mr. Arthur Dean's very cheering report of Dec. 1, 1864, and will greatly discourage investors generally; as, after such manifest discrepancies in their engineer's original report and the report of results actually obtained, people will naturally lose confidence, and place no more reliance in a report of Mr. Dean's than in a weather prophecy. At the meeting of the company Mr. Dean is stated to have said that the trials referred to "were *not* made under his own supervision;" and yet, upon referring to his report of Dec. 1, he says—"In making the trials hereafter reported I took the samples myself, put them into sacks, and carried them off the ground with me. The minerals so taken were ground down and amalgamated in bulk in a Britten machine, such as we use for the reduction of rich ores; and no one connected with the mines had any part in the operations." Now, what would anyone naturally infer from this? Why, certainly nothing else than that they *were* made under his own immediate supervision.

This sort of trifling is particularly galling to those who were induced to purchase on the strength of a report from such an eminent man as Mr. Dean, in the full belief that they were investing in a sound undertaking, and now find that the only thing their connection with the company will do for them is to give them the right to pay the calls as they become due; and ultimately to have the honour of seeing their names placed upon the list of contributories when the winding-up process is gone through, as hinted at by the directors at their last meeting.

In my opinion, it is unjust to so mislead the investing public; had Mr. Dean contented himself with giving an opinion merely upon the property no one could complain, in however glowing colours that opinion might have been expressed, but in his report he makes distinct assertions, thereby not admitting of a doubt of their correctness. He says, "There is no room to doubt that the Elizabeth and Maude lodes are superior in quality to the majority of gold lodes in the district," and the result of seven separate trials range from 14 dwts. to as high as 4 ozs. 16 dwts. 16 grs. per ton, being "the commercial results of the comparatively large quantities treated, and were probably one-fourth less than the total content by assay, there being a residue of gold left in the waste." The reason for this large produce never having been discovered before, he says, "may be traced to the imperfect manner in which the samples were taken, and to the determination of the contents in gold by assays of very small quantities."

Now, after raising all our expectations to the highest pitch, we are told in about a dozen words that all this is a mistake, and that this gold does not exist there; but the explanation of how this mistake occurred is quite as unsatisfactory as every other portion of the whole business. He stated at the meeting that some rich Clogau gold had been, unknown to him, previously reduced in the Britten's pan used for these trials. Now, anyone acquainted with the manipulation of gold ores can easily see how improbable it would be to have upwards of ¼ oz. of gold left in a common Britten's pan after treating ores, however rich, and yet this is the quantity which Mr. Dean asserts must have been left in this manner. And, again, how is it that it was not all, or nearly all, found in the first trial, instead of being nearly equally distributed through seven different samples, the pan, of course, at each sample or trial being thoroughly emptied and cleansed out? One is almost tempted to believe that the last paragraph of his report offers a more probable solution to the mystery, wherein he proposes a sum of 20,000*l.* to be spent in plant and machinery.—*Cannon-street, City, Sept.* 8. SCRUTATOR.

## PROSPECTS IN THE "LOVELL" DISTRICT.

SIR,—Much has been said for and against the mines in this district, more especially that of *East* Wheal Lovell. Some assert that the tin is a mere pipe, others that it is a flat, while others that it is a "more"—all speculative theories; but whatever it may be called makes no difference, in my opinion, as to its value, seeing that the returns for a mine yet in embryo, being only 45 fms. deep, have already amounted to about 10,000*l.* These figures, I think, give a much better idea of the value of this property than all the captains' reports in the county; and whatever may be written respecting it cannot possibly add to, nor detract from, its underground treasures. The discovery of tin in this mine has proved of great importance to the neighbourhood, and has shut up all kinds of absurd theories as to the formation of the tin bunches of this locality. It is the old story repeated. Here, as in all other districts, the elvans are the great mineral bottads, without which the chances of success are very remote. The parish of Wendron, in which this mine is situated, has been, and still is, the greatest tin-producing district of Cornwall. About one mile south of the famous tin district of Porkellas, is the one to which these remarks refer. It is a mineral channel of ground for some miles in length, being traversed by lodes, elvans, cross-courses, and flookans. The East Wheal Lovell is about one mile from the famous Old Wheal Lovell, on the course of the same lode, the latter mine having returned, within the last 30 years, about 185,000*l.* worth of tin, and still being worked. Between those two good mines, on the same lode, is *New* Wheal Lovell, which has been started within the last two years, during which time a 30-inch cylinder steam-engine has been erected, and a shaft sunk 30 fathoms deep; the ground from surface to as deep as the old workers could go, without the aid of pumping machinery, has all been taken away. The 20 fathom level has been driven under this old working, in a lode varying in value from 15*l.* to 60*l.* per fathom, from the back of which level alone, for about 30 fathoms long, already 560*l.* worth of tin has been sold, and still returning about 100*l.* worth monthly. The 30 fm. level is now being driven west of shaft, to come in under this level in a good lode, which, when accomplished, considerably increased returns must be the result. But this comparatively limited operation is of minor importance to what may be looked forward to by the cross-cut, which is now being driven out north in the 20 fathom level, to cut the Goblet and Quarry lodes! specimens from the back of which exceed in richness all I have ever seen in any district, one stone alone weighing 28 lbs., and producing over 75 per cent. of black tin. The Goblet lode is the same as that from which so much tin is now being raised in the adjoining mine—East Wheal Lovell, which will be reached in about 3 fathoms more driving, and I have every reason to believe it will be found equally, if not more, productive than anywhere yet seen. There are three other known lodes in this sett, the importance of which can at present only be estimated from the specimens of tin found near them at surface, the resources of which will ultimately be developed. Some slight idea of the value of this piece of ground may be formed from the fact that the late workings of Old Wheal Lovell are up to (and some levels driven into) this sett, down as far as the

...adit level, and large quantities of tin taken away. This part will by-and-bye be ...orted to great advantage, it being drained to this depth by those workings, and I have ...no doubt of the value of the ends, whenever the levels may be cleared. I have seldom ...seen in a mine so economically, and at the same time energetically, worked as this, for ...which great praise is due to the agent, he being quite up to the requirements of a min... captain. It is held in a great measure by local shareholders, who are no mean an... ...tions to follow in mining, for, depend on it, they generally manage to get hold of the ...right chance; and although but little has yet been said relative to its merits, it is cer... ...only destined to become a great mine, and in a very short time the shares must reach ...high figure, when (like East Wheal Lovell) it will be more appreciated by the public. ...present affords such an opportunity as I have seldom seen for a quick and great rise ...the market value of this property. There are other mines of great promise in this ...neighbourhood, which I hope to have the pleasure of referring to on some future occasion.

CHARLES BAWDEN.

*St. Day, Sept. 5.*

## PROSPECTS OF MINING ENTERPRISE.

SIR,—It seems somewhat extraordinary that the mining interest should ...ve been of late so void of any really important discoveries, which are ...w so sadly wanted to infuse new spirit into mining enterprises. Un...doubtedly there must be districts teeming with mineral wealth, only wait...ng for the capital (now thrown away in joint-stock speculations), time, ...d labour to thoroughly recompense those adventurers who may be spi...ted enough to invest their money in developing them. I know that many people look ...mining with a distrustful eye, they having, unfortunately, been deceived by embark...g in worthless concerns, to the great detriment of legitimate mines. One of the main ...ans of Britain's wealth lies in her minerals. Cornwall has long been known as ...e of the greatest mining counties; but, from some unknown causes, the supply of ...rals from the districts now in work seems very short of what the returns ought to ..., and makes it seem necessary to open out new districts to keep up that supply. I ...ow say many people will say—"We cannot afford to throw away our money on things ...at take so long to develope;" but they should look at the spirit of the old mining ad...venturers, as in the Great Wheal Vor and other mines, they being fully rewarded in ...e end, after having spent fortunes. I believe that mining will soon have a great im...pulse, from the fact that many mines in and around about Redruth, Scorrier, and Cam...borne are, or soon will be, on the eve of making grand discoveries. Persons may do well ...watch these districts attentively.

TO BE OR NOT TO BE.

REMARKABLE SPECIMEN OF QUARTZ.—Mr. George Maw, of Benthall, ...writes:—A short time since I observed at the Talargoch Mine, near Pres...tyn, Flintshire, a very curious, and, as I believe, unusal form of quartz, ...which, I think, is worth noticing. The mine is situated at the foot of a ...bold escarpment of mountain limestone forming the western termination of one of the ...great limestone ranges that run through Denbighshire and Flintshire. Most of the lodes ...occurring in the black shales and limestones at the base of the carboniferous series run ...east north east by west south west, and contain sulphurets of lead and zinc in a matrix ...of quartz and calc-spar. One of the lodes running east and west, nearly vertical, and ...from 3 to 6 ft. in width, is almost entirely occupied with silicious sand of the most per...fect purity and lustrous whiteness. Just at the side of the lode, at its junction with the ...limestone, a little calcareous and quartz spar occurs, which, in a few places, runs into ...the body of the lode, and an isolated nodule of spar, with a little galena, is occasionally ...found; but otherwise the whole lode is a mass of homogeneous and fine-grained sand, ...hard enough to be friable under the miner's pick, and when dry quite incoherent, break...ing up into fine dusty particles. A gradation between this white sand and the regularly ...crystallised quartz is occasionally met with in the form of white saccharoid spar, and it ...would be difficult to determine whether this sand lode is merely decomposed quartz, or ...a segregation of silica that had never attained complete crystallisation. The lode near ...the shaft at the foot of the escarpment is worked by a level about 125 feet deep; it ap...pears to thicken, and the sand increases in purity and freedom from crystalline spar to ...the east, where, under the limestone range, it is much further from the surface. I am ...informed that the late Mr. Hewson, analytical chemist, of Liverpool, could detect no ...trace of metallic oxide or other foreign matter, and ascertained the sand to be absolutely ...pure silica with a little water. I enclose some of the sand for your inspection; it is, ...without exception, the whitest mineral I have ever seen, and should think such a per...fectly pure form of native silica would be of great value in the manufacture of the better ...kinds of glass and pottery. As I recently described some deposits of sand in cavities ...in the mountain limestone of the same district, I would state that they are of a totally ...different age and character to the sand in the Talargoch Mine lode. I have recently ...observed, over a large district of Flintshire and Denbighshire, a great extension of white ...sand and clay deposits, older than the boulder clay drift, similar to those at Llandudno.

TIN DRESSING.—Some important improvements in tin dressing are being ...made at Cook's Kitchen Mine. By what I can learn, the agents there ...have got tin dressing to such a point as seems to have reached perfection, ...and all by a very simple process. The agents have remodelled their floors ...during the last twelve months, and introduced, after mature consideration, the same ...kind of buddle as that which Capt. C. Thomas introduced into Dolcoath from Devon...shire, but instead of giving the bottom of the buddle 1½ inch declivity per foot, be...lieved by all tin dressers to be the right thing, they have erected a buddle, and given ...it ¼ inch declivity per foot, and find that to be what was required to make it a perma...nent buddle. Instead now of allowing the stamped stuff to run into and lodge in a com...mon receptacle, or strip, it is taken directly, rough and slime together, into the buddle, ...and deposited in the usual way; by so doing they can throw away, in the first process, ...all the slimes and full one-half of the rough as worthless for tin, and will effect a sav...ing of not less than 50 per cent. in labour cost, besides a much greater percentage of ...tin, than by the old process. Should any mine adventurer, mine agent, or any ...gentleman interested in mining, wish to inspect this buddle, the agents would be very ...happy to give them any information which they may require respecting it.

COPPER SMOKE.—I see that it is proposed to abate the nuisance arising ...from the enormous quantity of sulphurous acid and arsenic that is thrown ...into the atmosphere by the copper smelters of Swansea, and which has ...laid waste a very large quantity of land in the neighbourhood of the copper ...works. Some years ago I took out a patent for the purpose of utilising ...the sulphurous acid thus wasted, which would have removed the nuisance ...so much complained of, and have become a source of very great profit to copper smelters. ...I brought my plan for utilising the sulphurous acid in the copper process before the late ...Mr. John Williams, then head of a large copper smelting firm at Swansea. After spend...ing two days at his works, showing him the profitable and practical nature of the process, ...and to which he did not raise any practical objection, he concluded by saying that the ...copper smelters' business was so profitable that they did not want any improvement in ...the trade, and as to the nuisance, they must do the best they could with it. I also ap...plied to another large company at the time, and was told the same story, that they did ...not wish to introduce anything new into the copper process. However, the question ...rests with the public and not with the smelter. Are the public to be poisoned with such ...vapours as sulphurous acid and arsenic, when they can be condensed, utilised, and turned ...to most profitable account? The case is analogous to the alkali trade: some years ago ...the destructive muriatic acid vapours were thrown into the atmosphere, to the great ...annoyance of the public and serious injury to vegetation. These vapours are now con...densed and utilised in the manufacture of chloride of lime or bleaching powder, and be...comes the most profitable part of the alkili manufacture. So it is with copper vapours; ...the sulphurous acid, now a public nuisance, may be converted into sulphuric acid, and ...employed in the manufacture of alkali (the acid being so impure would only be fit for ...alkali making); thus the loss of products and nuisance of the copper works are capable ...of being converted into immense fortunes, and the poisonous and barren waste of land ...in the locality of Swansea may be made to blossom like a rose. My patent has expired ...and, therefore, become public property, and I have no pecuniary interest in the matter. ...The object of modern chemistry is to throw nothing away, and in these days of chemical ...enterprise I wish to direct public attention to what may become a public convenience ...and a national advantage in saving what is now thrown away, and in saving the im...portation of so large a quantity of foreign products in the shape of sulphur and iron py...rites, the demand for which is almost greater than can be supplied.—THOMAS BELL: *Tiriel Works, near Victoria Docks.*

TESTIMONIAL TO A MINE MANAGER.—In another column we publish some interesting particulars, showing the progress of the Providence Mines during the past 32 years, concluding with the meeting on Aug. 30, when the 65th dividend was declared. During the whole of this time the purser...ship has been fulfilled with great energy and judgment by Mr. S. Higgs, and the adventurers having determined to present him with a substantial testimonial in recognition of his services, a dividend meeting was deemed to be a fitting opportunity for doing so. In making the presentation, Mr. Lanyon, of the Kennall Gun...powder Works, said that, as one of the original adventurers, he had seen the long-continued efforts of Mr. Higgs on behalf of the mines, until they had risen to that high position in the mining world they at present occupied. He had seen how for 17 years from the foundation of the adventure until the time when they began to pay dividends, he had struggled on and on with adverse circumstances which were enough to daunt any ordinary man, and had never looked back till he had achieved the goal of his wishes, and had proved the accuracy of his judgment that the sett was one of the richest in West Cornwall. He concluded by observing that he presented that magnificent testi...monial (a splendid silver salver and dinner-service, value 140*l.*) to their purser, whom he believed to be altogether worthy of it, as a lasting mark of the firm respect and esteem with which the shareholders regarded him. Mr. Higgs, in a very appropriate acknowledgment, referred to the progress of the mines, and the average prices of tin since their foundation. The mines were commenced in 1832 by 12 shareholders, in 112 shares, and during about 18 years, in which the mines had paid no dividends, scarcely any change took place among the adventurers, nor was the number of proprietors in...creased. The mines then began to prosper, and after a time it was considered advisable to divide them into 560 shares, afterwards into 1120 shares, which was the present number. He must express his deep conviction of the great benefit which accrued to the mines by the remission of the lord's dues for some years. When the lords of the land found that the undertaking, after being continued some years without making any pro...fit, was still being carried on, but could scarcely hold out much longer, they consented to remit their dues. This might be said to have saved the mines; in fact, it was a matter of life and death to them. In responding to the toast, "The better price of tin," Mr. Bolitho said that the price of tin, though low at present when compared with late prices, was still comparatively high, considering former prices. His father, who had lived to the great age of 90, had known extraordinary fluctuations in the price of pure metallic tin. His father had known it as low as 42*l.* per ton of pure tin, and as high as 168*l.* per ton. He believed that Lord Kinnaird, who had last year withdrawn his Mining Bill, would next session introduce another bill; and he considered it the duty of the Cornish people to anticipate that bill by taking some decided step in the matter of which it treated.

PETROLEUM AS FUEL.—The petroleum boiler at Woolwich Dockyard, lately experimented with, is now undergoing considerable alteration, in order to assimi...late it more to the simple form of the present marine boiler. The long course of experi...ments under Mr. Richardson's supervision at Woolwich has proved the system to be not only available but utterly free from danger; the experiments are now to be carried on with greater vigour. When the alterations are completed the boiler will be able to burn the Rangoon, Barbadoes, or Trinidad petroleum, together with the English coal and whale oils alternately, as well as every other kind of hydro-carbon, to obtain any degree of speed that may be required, and without waste.

MANUFACTURE OF HYDROCARBONS.—Mr. John Watson, of George-yard, Lombard-street, provisionally specified the manufacture of hydrocarbons from the upper and middle lias shales—a material not previously employed for that purpose.

## FOREIGN MINING AND METALLURGY.

The French Universal Exhibition of 1867 begins to pre-occupy seriously the attention of the industrial world of France. The great French works are preparing products to be sent to Paris on this important occasion. There is a sustained and, to a certain extent, an important demand for iron at St. Dizier, and all the works are pressed in connection with deliveries. Prices are accepted without discussion, rolled making 9*l.* 8s. to 9*l.* 12s., and hammered 10*l.* 16s. to 11*l.* per ton. It is understood that a new industrial establishment is to be formed in the St. Dizier group, the Gue Mills having been leased for the purpose of manufacturing wire, points, &c. The mills are well situated, and have a fall of water assuring at all times more than 100-horse power. Works of installation have been commenced at the mills. A committee of manufacturers of machine iron and points has just held its first meeting; the committee is composed of six members. The advance made by works of the Nord is confined to 4s. per ton, dating from Aug. 16. The deliveries of iron and castings for building purposes at Paris are sensibly reviving, and will, probably, soon attain the level which they had reached at this period last year. Thus, during the first seven months of this year 12,597 tons of iron and 8951 tons of castings entered the French capital. During the corresponding period of 1864 the introduction was noted of 9298 tons of castings and 15,961 tons of iron. At the close of June the falling off in the receipts of iron was 27 per cent., while at the close of July the reduction had been brought down to 21 per cent. Similarly the falling off in the imports of pig had been reduced from 6½ to 3¼ per cent. The Creuzot works have just concluded a contract with the Southern of France Railway Company for 40,000 tons of rails, at 8*l.* per ton, with delivery at Cette. The railway company has reserved the privilege of carrying the total quantity delivered to 65,000 tons, on the same terms. The quantity of iron minerals imported into France in 1863 and 1864, and during the first six months of 1865, was as follows:—

| Direction of Imports. | 1863. | 1864. | To June 30, 1865. |
|---|---|---|---|
| England.....Tons | 1,311 | 2,964 | 692 |
| Belgium | 203,547 | 227,033 | 125,549 |
| Germany | 59,928 | 63,753 | 37,412 |
| Spain | 59,685 | 38,390 | 21,119 |
| Italy | 83,819 | 91,332 | 36,054 |
| Algeria | 20,977 | 28,586 | 17,172 |
| Other Countries | 6,732 | 5,031 | 3,733 |
| Total | 435,999 | 457,089 | 241,730 |

The annual general meeting of the great Parisian mechanical undertaking, trading under the style and title of J. F. Cail and Co., is to be held on September 28, to consider the general progress of the concern, to receive the accounts of the past exercise, and to declare a dividend, &c. At this meeting 800 obligations of the first series and 1750 of the second series, will be drawn for repayment, at the rate of 18*l.* each. Later advices from St. Dizier note the conclusion of a sale of 100 tons of mixed pig (65 per cent. coke), at the rate of 3*l.* 17s. 6d. per ton, delivered at the station nearest the furnace. The demand for sheets at St. Dizier is active.

The Paris copper market has been very quiet, and prices have fallen, English having made 86*l.* 10s.; rough Chilian, 80*l.*; and Corocoro mineral, 84*l.* 8s. per ton. The Havre market has been inactive, almost without business, in fact. On the German markets little has been done worthy of mention. At Hamburg former rates have been nominally sustained. At Cologne there has been a very strong tendency downwards. At Berlin the market has been inactive, but at the same time some foreign descriptions give rise to rather firm rates. Tin remains generally very quiet, but some purchases have, nevertheless, been noted in Holland. Thus, at Rotterdam, 500 blocks of Banca have changed hands, at 54 fls.; 500 blocks, at 54½ fls.; 2000 blocks, at 53½ fls.; and 1500 blocks of Billiton, at 53½ fls. The closing price for Banca on that market was 55 fls., and for Billiton 54 fls. At Amsterdam, Banca tin, more offered, has been dealt in at 54 fls. to 54½ fls. At Paris, Banca has been quoted at 96*l.*, and Detroit and English at 93*l.* per ton. The Cologne market has remained without affairs worthy of mention; and at Stettin and Hamburg prices have been nominal. A letter from Amsterdam says:—"The position of the market is not very satisfactory. At the commencement of August we quoted the article at 55½ fls. to 56 fls., and for some months this price was maintained, because there were no pressing sellers. Feebleness, nevertheless, soon appeared, and to effect sales concessions had to be submitted to. Towards the middle of the month an affair of 1000 ingots was concluded at 54 fls., a price which appeared tempting, and which would, probably, have provoked more considerable transactions if sellers had been more numerous. Thanks to the more favourable advices from London, the market has hardened during the last few days, and we now (August 31) quote the article at 55 fls." Annexed are some details as to the Dutch stock:—

| | 1865. | 1864. | 1863. |
|---|---|---|---|
| Stock on Schedules July 31....Ingots | 175,230 | 154,420 | 129,853 |
| Deliveries in August | 33,611 | 55,520 | 29,764 |
| Stock on August 31 | 141,619 | 98,900 | 100,089 |

The arrivals for the Society of Commerce, at the close of August, were 42,668 ingots, as compared with 17,352 ingots at the corresponding date of 1864, and 21,997 ingots at the corresponding date of 1863. Rough French lead is quoted at Paris 19*l.* 8s., and Spanish at 20*l.* 10s. per ton. On the Rotterdam market a little more demand is noted for lead, at previously quoted rates. The article maintains the same position on the various German markets. The zinc markets continue quiet. The accounts from Breslau and Hamburg do not indicate any very striking movement. At Hamburg disposeable zinc is rather scarce, and, by consequence, former rates are maintained; in transactions with prescribed terms of delivery, quotations have established themselves slightly in favour of purchasers. The Paris market is quiet; rough Silesian is quoted at 23*l.* 4s. per ton, with few purchasers.

The *Journal de Charleroi* states that it is proposed to form at Charleroi a committee of metallurgists, like the coal and glass committees already existing. The project possesses many partizans among the forgemasters. It is undeniable that the latter have as much interest as other industrials in associating themselves together for commercial purposes. Another attempt is to be made to hold a meeting of the Sambre Rolling Works Company on Monday next, Sept. 11. A meeting recently convoked proved abortive, in consequence of the insufficient representation obtained of the share capital of the company. The Providence Forges Company will pay, on Oct. 31, a dividend of 4*l.* per share in respect to the exercise 1864–5. The Châtelineau Blast-Furnaces and Collieries Company will pay, on Oct. 1, obligation interest at the rate of 6s. per obligation. The situation improves in Belgium, and, if the advices received from England were not considered so indecisive, hopes of better times would soon become realities. No important contract is now under discussion either at Liége or Charleroi, but the current of old orders is sufficient to maintain a fair amount of activity in the works. Belgian forgemasters may be said to show themselves hopeful of a general revival, and, by consequence, present quotations are firmly sustained. Annexed are a few of the quotations current at Charleroi:—White pig, hard iron, 3*l.* 10s.; iron in bars, No. 1, 7*l.*; and sheets, 9*l.* 8s. pes ton. The report of the Guillaume-Luxembourg Railway Company for 1864 gives some interesting information with respect to their mineral traffic in 1864. The report observes:—"In the general movement of goods in 1864, the conveyance of minerals enters for 356,035 tons, or 975 tons per day. In 1863 the average tonnage per day of minerals was 719, showing an augmentation in 1864 of 256 tons per day, or 35·60 per cent. We"—that is, the directors, "have not ceased to call your"—that is, the shareholders'—"attention to this part of our traffic, and we have not ceased to tell you that we shall find in the mineral wealth of the Grand Duchy of Luxembourg the elements of our prosperity in the future. It is not without interest to bring under your notice the results obtained since the commencement of traffic on our mineral branch. In 1860, we conveyed 101,980 tons of minerals; in 1861, 112,933 tons; in 1862, 205,482 tons; in 1863, 289,877 tons; and, in 1864, 356,035 tons. The total quantity of minerals conveyed thus amounts in the five years to 1,066,367 tons, of which 895,041 tons were exported from the Grand Duchy. The movement into the interior of the country was then only 171,326 tons. The transport of minerals abroad increases every day, and the approaching opening of our northern line will assure to the minerals of the Grand Duchy a new and very important outlet in the rich metallurgical basin of Liége. As regards the conveyance of minerals into the interior of the Grand Duchy, it is still in its infancy, but it will soon acquire a great development in consequence of the establishment of new blast-furnaces, which are now in course of construction. We entertain the most complete confidence on this point. We have a conviction that metallurgical industry in the Grand Duchy cannot fail to develope itself; and if the progress made hitherto in this regard has not been very rapid, we believe that this arises solely from circumstances altogether accidental, and inherent in the general situation of affairs, which have not been prosperous since the commencement of our working."

The Hoerde Mines and Ironworks Company was to hold a meeting, yesterday, at Hoerde. The following further meetings are announced:—United Proprietors' Colliery Company (Charbonnage des Proprietaires-Réunis), Sept. 11, at Marchienne; Ruhr Collieries Company, Sept 16, at Brussels; Sicilian Sulphur Company, Sept. 17, at Turin; Solenzara Blast-Furnaces Company, Sept. 18, at Paris; Belgian General Railway Plant Company, Sept. 19, at Molenbeek-St. Jean; Picton-Campagne Colliery Company, Sept. 19, at Charleroi; Longterne-Ferrand Colliery Company, Sept. 19, at Elonges. These foreign companies, as a general rule, keep their proceedings very private; in only a few instances is publicity the order of the day.

FREE TRADE, AND THE AMERICAN IRON TRADE.—The American ironmasters, or at least some few of them, seem to be thoroughly bent on making their fellow-countrymen entirely dependent upon them for their supplies of iron. The Iron and Steel Association are working most energetically, and the *Pittsburgh Oil News*, alluding to one of its meetings being convened, thus announces it:—"Let Pittsburgh have a full delegation at the Iron and Steel Association, to be held in Cleveland on Wednesday next. Let all the interests of the iron and steel business be thoroughly canvassed. Let there be unity of action. Let every argument and influence be brought to bear, and the documents circulated, so that the next Congress will not only see what the iron and steel interests demand, but will be prompt to take such action as will result in protection and a new stimulus to our manufacturing interests."

THE BESSEMER PROCESS IN AMERICA.—Messrs. Park Brothers have decided upon introducing the pneumatic process at their steel-works in Pittsburgh, U.S. It is well known that the pneumatic, or air process, of steel manufacture consists in forcing atmospheric air through molten cast-iron, whereby the carbon of the cast-iron, entering into chemical combination with the free oxygen of the air that is forced through the melted metal to form carbonic oxide and carbonic acid (and thereby increasing the heat to even above the point of wrought-iron) is extracted, and the cast-iaon brought to the nature of steel. Dr. Percy, of the Royal School of Mines, in London, has remarked that "in order that the Bessemer process should be generally applicable in this country it must be supplemented by the discovery of a method of producing pig-iron sensibly free from sulpur and phosphorus, with the fuel and ores which are now so extensively employed in our blast-furnaces." Prof. A. L. Fleury, in a recent paper descriptive of this process, intimates a doubt of its ability to overcome the obstacles mentioned, and says—"These glimpses may give us sufficient reason for the assertion that the pneumatic process has yet many hard battles to fight before it becomes perfect enough for general use."

A DWARF ENGINE.—One of the most curious articles of the Wakefield Exhibition is, perhaps, a steam-engine and boiler in miniature, and described as the "smallest steam-engine in the world." It stands scarcely 2 in. in height, and is covered with a glass shade. The fly-wheel is made of gold, with steel arms, and makes 7000 revolutions per minute. The whole engine and boiler is fastened together with 38 screws and bolts, the whole weighing 14 grains, or under ¼ oz. The manufacturer says of it that the evaporation of six drops of water will drive the engine eight minutes. This piece of mechanism is designed and made by a clock manufacturer at Horsforth.

# Meetings of Public Companies.

## MONTES AUREOS (BRAZILIAN) GOLD MINING COMPANY.

An ordinary general meeting of shareholders was held at the London Tavern, Bishopsgate, on Tuesday,

Mr. JOHN HOCKIN (Deputy-Chairman) in the chair.

The report of the directors stated that much less progress had been made towards the completion of the works at Montes Aureos than they had hoped to have reported at the present meeting. This has arisen chiefly from the difficulty of procuring labour, caused by the stimulus given to cotton growing from the high prices which prevailed in this country. This cause no longer existing, there is every reason to hope than an adequate supply of labourers will ere long be provided, so as to enable the manager to prosecute vigorously the several works which have already been partially prosecuted, many of which are in a very forward state. The company's agents at Maranhao, in their two last letters, have made mention of labourers engaged and sent on to the mine. The Provincial Assembly of Maranhao have exempted the Montes Aureos Company from payment of the 5 per cent. export duty on gold from that province. This concession required to be sanctioned by the President of the province, which would have been obtained by this time. The gold in store may, therefore, be expected shortly to arrive in England. As regards the explorations in Piauhy, Mr. Pearson Morrison has been actively engaged on this service since Jan. 13, but the result of his investigations has not been of such a nature as to encourage the board to make a claim to the mineral rights on any land visited by him in the province of Piauhy. The extreme difficulties of transport, the absence of timber for mining purposes and for fuel, the heat and unhealthiness of the climate, and the sparseness of population, would not, in the opinion of Mr. Morrison, allow of any mining enterprise being worked profitably in the district which he had visited. Mr. Morrison has explained with great fulness the circumstance which have let him to form so unfavourable an opinion of the province of Piauhy as a field for mining enterprise, and the board having arrived at the same conclusion, has, therefore, decided on abandoning for the present all further exploration. Mr. Morrison's arrival in England may be expected shortly. If at a future time it should be thought advisable to renew these researches in the province of Maranhao this can be done more economically by means of the staff at Montes Aureos. The balance-sheet shows that about 9000*l.* still remains unexpended and available for the prosecution of the enterprise, in addition to the proceeds of the gold which may henceforth be extracted.

THE CHAIRMAN said it was only within the last hour that he had been called upon to take the chair upon the present occasion, the Chairman (Sir W. Gore Ouseley) having been prevented from attending owing to ill health. The report, comprising the letters received from Mr. Günther, entered fully into what had been done during the past three months, and explained that Mr. Günther had not been able to do more from want of labour. Shareholders would see from those letters that Mr. Günther had been disappointed in not obtaining an accession to his labour force, which had retarded the completion of the tram-road up to the stamps. Owing to the same cause—an inadequate supply of labour—they had been unable to work the stamps night and day, or, in other words, the stamps had worked but half-time, and consequently only half the amount of computed produce had been realised. Mr. Günther, however, in his most recent letters, fully confirmed his previous statements that he would be able to realise the amount of estimated produce as soon as he could secure the necessary amount of labour. The directors were now of opinion that this would be a difficulty for some time to come, but upon that point, Mr. Morrison (who was present, having recently returned from Brazil) could give a much better opinion. There was one encouraging fact in the report: it would be recollected that in the circular issued by the directors on March 18, Mr. Günther showed that by working 24 heads of stamps he hoped to be able to obtain 22,000 ozs. of gold per annum; and the tabulated statement given in the report showed that, taking the yield as it actually was in the month of March, the produce was at the rate of 26,984 ozs. per annum; but during that month there was obtained a larger yield than that upon which Mr. Günther had based his estimates. The report had already informed the shareholders that Mr. Morrison had not been successful in making discoveries in the province of Piauhy, and upon that point Mr. Morrison would be able to afford every information that shareholders might desire. Since the report was issued the directors had received despatches from Mr. Günther, dated July 20, in which he says that "during part of the month of June, in order to be able to work at the speed and time I had calculated, I found it necessary, after careful consultations with the engineers, to stop the stamps whilst the boiler of the new engine was being strengthened. The boiler-plates sent from England arrived very opportunely. The repairs, which include coating the boiler, to prevent loss of heat, are now finished, and the speed of the engine has been so much increased that it delivers 57 to 60, and even more, blows per minute. The consequence of this delay has, however, been that the yield for June was only 370 ozs." Mr. Günther further states that, "no doubt, you will already have been informed that the impost duty of 5 per cent. on exportation of gold has been repealed by the Provisional Assembly. The agents will, no doubt, have forwarded the other ingot in their hands, and I shall shortly send on all the gold in store here." With reference to the progress of the works, Mr. Günther writes—"The horse-whim for Grota Francisca incline is ready, and only wanting a pulley to be put up; also winding-apparatus for sand inclines. The open cut is nearly cleared out, and we shall be soon again in natural ground." Upon the question of the supply of labour, Mr. Günther says—"I have got many promises, and I am daily expecting an accession to our force; it is horrible to be thus short of hands." Having stated that the directors would be glad to afford any further information that was required, he (the Chairman) moved that the report of the directors be received and adopted.

Mr. JAMES said the present was the first opportunity he had been able to express to the directors the fact that his expectations had been most sadly disappointed. During 1863 and 1864 the reports issued were of the most flattering character. Statement after statement from Mr. Günther was published that this mine would soon stand amongst the richest in the world, and whether there was any prospect of that ever being realised was a question which the directors could best answer. He knew directors were not infallible, but he would ask them if, when the prospectus of the company was published, they took every means in their power of ascertaining the truth of the statements therein put forth as to the capabilities of the property and the access to it, because it now appeared that its capabilities were fictitious, for, although Mr. Günther was continually sending home the most encouraging reports, results were never realised. It appeared to him (Mr. James) that the directors did not at the outset take the necessary precaution to see what kind of access there was to the property—this it was that had caused so much difficulty, delay, and disappointment. Under these circumstances he considered the directors were in duty bound to do all they could to satisfy the shareholders upon these points. He considered the directors had made a great mistake in appointing the present manager—he (Mr. James) had never been satisfied with him, for he had always found that his reports were belied by results, or rather no results, and at the present time they were being belied more than ever. His report in February stated that he was confident he would be able to pay the expenses of the mine during this year; but now the inadequacy of labour was put forward as the pretext for the non-fulfilment of that promise. Why, the labour market at that time was no different from what it was now, save that it was in rather a better condition than it was then, owing to the cessation of hostilities in America. Although he (Mr James) and, doubtless, the whole of his fellow-shareholders were greviously disappointed, yet he did hope that the directors would increase their efforts for the future to realise something for the benefit of all concerned.

A SHAREHOLDER enquired of Mr. Morrison the grounds upon which he based his unfavourable report?—Mr. PEARSON MORRISON said that his report specially referred to the great difficulties which stood in the way.

Mr. GRAY enquired if Mr. Morrison thought the operations ought to be continued?—Mr. MORRISON replied most emphatically in the affirmative.——Mr. GRAY further enquired if Mr. Morrison considered that Mr. Günther was doing his best for the company?

Mr. MORRISON: Most unquestionably. Mr. Günther was a most indefatigable man, and was doing all he possibly could for the benefit of the company. This was a great deal for him (Mr. Morrison) to say, seeing that Mr. Günther and himself had not been on the best of terms. Without exception, Mr. Günther had been placed in one of the most difficult positions in which a man could be possibly placed.

Mr. GRAY enquired if there was any property in the neighbourhood that possessed a sufficient quantity of gold to pay for working?—The CHAIRMAN explained that Mr. Morrison was at Montes Aureos a fortnight only, and, therefore, could not have had any opportunity of prospecting.

Mr. MORRISON said he did not see anything in the assays offering better results than in the property of the company.

Mr. WRIGHT (a director) said, that as he was not one of the original directors he was not responsible for the statements put forth in the prospectus, but having enquired into the whole facts of the case, having made every possible enquiry, and examined all the documents, and compared them with the statements put forth in the prospectus, he (Mr. Wright) was bound to say that had he then been upon the board he should have had no hesitation whatever in putting those statements forward. Undoubtedly the access from the mines to the sea was not easy, but that difficulty had now been overcome. As to the existence of gold there could be no question, as evidenced by the specimens which Mr. Günther had taken from the virgin ground and sent to this country, but as to whether it existed of the same richness in quantities was a matter which the directors knew no more than the shareholders, but if it did exist the success of the company was assured. The great difficulty was that of labour, and taking this and other circumstances into account, Mr. Morrison stated that it was incredible that so large an amount of work had been accomplished, considering the means that Mr. Günther had had at his command. He (Mr. Wright) was not saying that Mr. Günther ought not to have gone into the question of labour before he gave his opinion as to results, but as to whether it was worth while continuing operations or not, he considered that as the unexpended capital was so small, and as upon its proper expenditure depended the success of the company, it would be a most ill-advised and imprudent step to suspend operations just at the time when the most successful results might be attained. Mr. Morrison, in his report, thought that Mr. Günther could more advantageously employ the whole of his hands in working the mine than by engaging a portion of them in raising food, thinking that supplies of food could be purchased; but Mr. Morrison had since found out that in that district the purchase of food was impossible, for the people would not sell anything. Although the scarcity of labour was a difficulty which Mr. Günther ought to have foreseen in the first instance, yet it was one which they had to face. As far as the directors were concerned, they had done, and were still doing, all thy possibly could on behalf of the company, and although they did not receive any remuneration for their services, no effort should be wanting on their part to ensure the success of the company. (Hear, hear.)

Mr. DUCROZ (a director) mentioned that Mr. Günther had written home to the effect that he should not draw more of his own salary than requisite for his maintenance, leaving the remainder in abeyance, thus showing his own confidence in the ultimate success of the company.

The CHAIRMAN, replying to a question, stated that Messrs. Johnson and Matthey's assay of the ore sent to this country showed that it contained gold equal to 950 ozs. per ton. The specimen was taken from virgin ground, and in the returns for March some ore was taken from the virgin ground, which had the effect of largely increasing the produce.—Mr. GRAY asked if the present returns would pay the whole of the current expenditure?——Mr. WRIGHT replied in the negative, and stated that when the engine went to work the expense would more than be paid. Accompanying the specimen of ore which had given such an astonishing yield of gold, there was the following communication:—"Specimen found in Grota Franciaca, to west of large open cutting, by three of the company's labourers who were clearing away the brushwood."

A SHAREHOLDER thought it was a pity that Mr. Günther had not investigated the place more thoroughly before having sent home specimens.

The CHAIRMAN said it was very unlikely that there would be found any quantity of stuff so very rich: that was not expected.

A SHAREHOLDER wished to know how many stamps had been erected, and how many there were to erect?——The CHAIRMAN said that 24 heads had been erected, there were 24 in course of erection, and there were a further 24 heads in the country.

Mr. ATHERTON said the fact that so much gold had been got out of the refuse was a practical proof that there must be gold upon the property; and now that they were commencing operations upon the virgin ground he considered there was every reason to hope that the future was one of promise. As far as the directors were concerned, it would be impossible to find a more painstaking and efficient body. He more especially alluded to

the late Mr. De Castro, who expended a large sum of money in ascertaining the fact that gold did exist in the property. As regards the question of labour, he had heard a suggestion made by which he thought the labour could be increased, in which case he did not think there could be any doubt as to the eventual success of the company.

Mr. James enquired if there were any ambassadorial connection between the English and Brazilian Governments?

The Chairman said there was not at present. Negociations were now going on with the view of establishing relations between the two countries. As regards the question of labour, as had already been stated, a suggestion had been made, and the directors had immediately acted upon it, from which some hopes were entertained that the difficulty would be overcome. (Hear, hear.)

Mr. James had understood that something like half of the shares were held by Brazilians, who were the vendors of the property; but he supposed those shares were sold long since.——The Chairman said that, although those shares could have been sold when they were at a premium, they were still held by the Brazilians, who were at present the largest proprietors, and the original owners of the property.

The motion adopting the report was put and carried unanimously.

A vote of thanks to the Chairman and directors terminated the proceedings.

## RAILWAY PASSENGERS ASSURANCE COMPANY.

The thirty-second half-yearly meeting of shareholders was held on Wednesday, at the offices of the company, Cornhill,

Mr. James Clay, M.P., in the chair.

Mr. Vian (the secretary) read the notice convening the meeting.

The report of the directors stated that the premiums of assurance received during the half-year ending June 30 last were 40,593*l.* 3s. 8d. on general accident policies, and 2993*l.* 16s. on railway accident policies and tickets, being together 43,586*l.* 19s. 8d., against 37,978*l.* 14s. 2d. in the corresponding half-year in 1864. Including the balance of 25,969*l.* 10s. 9d., brought forward from Dec. 31, and the interest on investments, the amount brought to the credit of the revenue account for the half-year is 70,328*l.* 2s. 8d. The disbursements (including the final instalment to complete the replacement of the capital sunk in the preliminary expenses), amount to 40,612*l.* 9s. 5d., leaving a balance of 29,715*l.* 13s. 3d. to be carried forward to the current half-year's account. From this sum interest on the paid-up capital at the rate of 4 per cent. per annum, as prescribed by the Deed of Settlement, will be paid to the proprietors, and the balance retained to meet the risks on policies still running. The compensation paid during the half-year was made up as follows:—12 fatal claims, 46,000*l.*; 1859 cases of personal injury, 17,914*l.* 7s. 10s.; total, 22,514*l.* 7s. 10d., being at the rate of 51·65 per cent. on the premiums received during the same period. This gratifying reduction is due to the fact that, although the number of fatal claims has been quite up to that expected, they have arisen principally from persons insured for small amounts, the average being only 383*l.* each, or not more than 55 per cent. of the average amount of each death claimed during the three preceding years. This can only be considered an exceptional source of profit, as in a series of years the average amount of each fatal claim may be expected to approximate more closely to that of each policy. Among the fatal claims accruing during the half-year was one from a warehouseman, killed in a railway accident to the tidal train at Staplehurst, on July 14 last, who had only paid 4d. for a return ticket, by which 500*l.* was secured to his family, and which has since been paid to them. Two of the passengers injured in the the same accident were also insured, as were 26 of the sufferers in an accident to an excursion train at Rednal, on June 7. Facts like these are, of course, the best means of spreading the knowledge of this description of assurance amongst classes to whom assurance of any kind is almost unknown. It appears evident that those who can insure by the year prefer the more comprehensive plan offered by the company of insuring against accidents of all kinds, railway or otherwise. These form but a small portion, however, of those who travel, and to whom prompt pecuniary assistance to themselves if injured, or a provision for their families if killed, would be acceptable. As the system becomes more fully known, it may be reasonably expected that greater numbers will be found to avail themselves of the advantages offered at such a moderate cost.

The Chairman, having proposed that the report be received and adopted, stated that it so fully explained the result of the company's operations since the last meeting that any lengthened remarks from him were rendered altogether unnecessary. In fact, there was so little to do at the half-yearly meetings, beyond declaring the interest at the rate of 4 per cent., to which, in fact, they were restricted by their charter on those occasions, that it might be well to consider whether it would not be well to confine themselves in future to the annual meetings in March, when they met to submit the balance-sheet of the year, and to declare a bonus. The directors would take the subject into consideration, and probably a special meeting would be called to sanction an alteration in the Deed of Incorporation for doing away with the autumn meetings. What little there was to add to the report was satisfactory. The increase in the journey tickets, which, though not the largest, was one of the most remunerative branches of their business, had been greater than in any previous half-year he recollected. This, he believed, was due in a great measure to the many and sad accidents that had happened upon railways during the half-year, which had induced numerous persons to insure who otherwise would probably have neglected it. Since the report was published they had had 50 claims arising from the single journey tickets. There was one case mentioned in the report of a warehouseman who was killed by the accident at Staplehurst, and who, by the payment of 4d. for a single journey ticket, secured for his family 500*l.*, which had since been paid. That the great advantages which the company offered to the public were appreciated was proved by the fact that their business now amounted to 90,000*l.* a year, while they had paid nearly a quarter of a million on account of claims which were made. Still, it was marvellous that there were so many who supposed that they only insured against railway accidents, and not against accidents generally. The great thing they wanted was publicity, which, however, they were acquiring more and more every day by a liberal expenditure in advertising, but which might be added to by the shareholders themselves making the purposes and objects of the company known to their friends. The affairs of the company were in all respects progressing satisfactorily. The legal expenses, owing to the liberal manner in which all claims were met, were unusually small, and the name of the company was held in respect as one that cheerfully acknowledged and met its liabilities. Some of the shareholders might be discontented with the proportion of the profits which the directors had divided by way of bonus, but it had been their object to place the company in the most perfect state of stability and safety. There was no reason to apprehend anything of the kind, but it was to be remembered that they were liable at any time to some catastrophe of great magnitude which might occasion a serious drain upon their resources, and the object of the directors had been to be able to meet any such contingency without making any call upon the shareholders. (Hear, hear.) It would be observed that the expenditure incurred in the original formation of the company was now entirely paid off, and the item of preliminary expenses would henceforth disappear from the accounts.

Mr. H. M. Farquhar had much pleasure in seconding the motion for the adoption of the report.——Mr. Black suggested that the 400 forfeited shares in the hands of the hands of the directors should be allotted *pro rata* among the proprietors, either at par or at a small premium, and the proceeds placed to the credit of the company. He quite approved of the idea of doing away with the autumnal half-yearly meetings.

The Chairman promised that the suggestion should be considered.

The motion was put and carried unanimously. A cordial vote of thanks to the Chairman and directors was passed, when the proceedings terminated.

London Association of Foremen Engineers.—At the ordinary monthly meeting, on Sept. 2 (Mr. Joseph Newton, of the Royal Mint, in the chair), Mr. William Dalziel read a paper on "Gas Lighting in Railway and other Carriages," the object being to describe his invention, which is at present being tested on the South-Eastern Railway. He stated that the problem he had sought to solve was that of obtaining a uniformly steady light from a high-pressure gas-holder, and that with a minimum amount of trouble and attention on the part of those who would have the direct control of the apparatus. The gas-holder in use on the railway in question had a cubical area of 8¼ feet; this, when charged up to a pressure of 135 lbs. on the square inch, supplied two No. 3 burners for a period of sixteen hours, and the latter gave out a uniform and perfectly unvarying amount of luminosity. In order to effect this he had placed two wrought-iron tubes of 7½-inch bore, 14 feet 6 inches in length, and the ends of which were welded, upon the bottom of one of the carriages. The tubes were connected together by means of a small pipe. To these high-pressure gas-holders were applied inlet and outlet pipes. Connected to the outlet pipe was a regulator. This consisted of a common gas-holder, working in water, forming a hydraulic joint. The regulating holder is fitted with an inlet and an outlet pipe, the last-named being carried to the burners on the carriage. The outlet pipe of the high-pressure holder is connected with the inlet pipe of the regulator. Fixed between the inlet of the regulator and the outlet of the high pressure holder is a slide valve worked by a lever. The port of the slide valve is of a V-shape, the lever being attached to the regulating holder by means of connecting rods. When, therefore, the regulating holder rises it depresses the valve and closes the port; on the contrary, when it descends it opens the port. When the high-pressure holder was charged with gas the latter passed through it and into the regulating holder, causing the gradual closing of the port. When the port was closed the charging might be continued until the pressure required was attained; afterwards all would be ready for lighting. Allowing that this has been accomplished, and that the consumption of gas is going on, the action of the apparatus would be as follows:—The regulating holder gradually descends, opens the port, and admits a further supply from the high-pressure holder. Thus it continues to act and re-act, its movements being governed entirely by the passage of the gas, and demanding no attention until the time arrives for re-charging the high-pressure holder, which is a simple mechanical operation, performed indeed by a force-pump, worked by a steam-engine. By this arrangement, Mr. Dalziel stated, great economy would result. Each carriage would have its own independent reservoir of compressed gas, sufficient, if needed, to supply two burners for sixty hours, and the whole occupying comparatively very little space. The apparatus would be invisible to the passengers, and so simple that it could scarcely be deranged, unless by some severe accident.

Alloys.—Every thoughtful metal worker, who has his hands too full of his daily employment to spend much time in experimenting on the properties of the metals he uses, must have often wondered how it came to pass that, with all our boasted knowledge of chemical and metallurgical subjects, we have as yet only succeeded in inventing some half-dozen useful alloys. Brass, pewter, gun-metal, German silver, and type metal are really all the alloys that we can name as entering into the manufacture of the more common articles of trade in this country. The causes of this apathy in experimenting on the properties of mixed metals are manifold. The practical metal worker of the present day is generally ignorant of the chemistry of the metals he uses; and, even if he were well informed, he would be too busy fighting the great battle of competition to set himself the extra task of experimenting upon alloys. But metal workers will turn round, very naturally, and ask how it is that practical chemists, whose business is to make experiments, do not investigate the capabilities of metallic mixtures more frequently than is at present the case? We fear very much that the only answer to be given to this is that scientific chemists of all countries have, almost without exception, been bitten with the mania for nearly exclusively pursuing their researches and expending their talents upon organic compound. This department of scientific chemistry is so vast and so fruitful in results, that it is quite a rarity to see an article in a scientific journal upon a metal or metallic compounds. Even those chemists who have not wholly given up the study of inorganic compounds seem to apply themselves to analytical observations, or to the investigation of the rarer metals. As an example of the want of knowledge of the capabilities of alloys, we may instance the discovery lately made by M. Pelouze, of the French Mint, that the best metal with which to alloy silver is zinc, and not copper, as we have always believed. Now, considering that silver has been known from the remotest ages, and zinc, at any rate, since the birth of modern chemistry, it seems singularly strange that no one ever thought of trying the effects of these two metals on one another until now. To take the case of iron, a merely cursory examination of the second volume of Percy's Metallurgy" will show that some of the very simplest questions relating to this most common and important metal remain as yet unanswered. Such an apparently vital matter as the formation of steel is a bone of contention at nearly every meeting of the French Academy of Sciences,—one party persisting in declaring that no steel can be made without the intervention of both nitrogen and carbon, while the other side as manfully contend that nitrogen has nothing to do with cementation, carbon being the only element concerned in the process. This example shows that not only does the action of one metal upon another, in a state of combination, require patient study, but also the effect of the addition of varying proportions of the metalloids, such as carbon, phosphorus, silicon, sulphur, &c., to different metals, is still undiscovered.—*Chemist and Druggist.*

## WHAT THE PRINCE AND PRINCESS OF WALES SAW UNDERGROUND AT BOTALLACK MINE.

At the dinner which followed the commencement of pump-work by a new engine at East St. Just United recently, Capt. John Boyns, of Botallack, was one of the mine agents present, who was called on to respond for the toast of "Our Neighbouring Mines." Capt. John accompanies a majority of the visitors to Botallack, to the tunnels of depth and darkness so many are now anxious to inspect, and the ladies seem specially delegated to his care; so when a Royal arrival was contemplated in the subterranean works to Capt. John was entrusted the care of the Princess. In addition to his response to the immediate subject of the toast at dinner, he was asked to give some account of the Prince's and Princess' unprecedented (for them) underground "progress," and spoke as follows:—

Your Chairman, gentlemen, has complimented me on the honour of being intrusted with the care of Her Royal Highness underground at Botallack, and I shall ever esteem it a privilege—a privilege of which any loyal subject would be proud—to have had the honour of conducting our own Duchess through the 205 fm. level of the Crown's mine. I think I may fairly aspire to a greater honour than that of merely acting as guide and protector, and say that I gave Her Royal Highness her first lesson in practical mining. The first object of interest we reached, after we left the shaft-plot, which is 2400 feet from the surface, was a tram-wagon full of rubbish, and it was explained to the Princess how much labour is involved in hauling useless stuff to surface, in order that the valuable ore may be worked and extracted. The tram-wagon being near the tram-hole could be quickly laden with this rubbish, and this process was shown, and an explanation given of the connection between the tram-hole and the winze to which it led. We then approached a point where a lode had been cut out, and it was explained that any copper or tin which once existed there was now gone, and quartz and iron alone remained. Then a winze, sunk for ventilation, attracted the notice of Her Royal Highness; and its object, the great use it proves to the miner, and the communication it forms with other levels, were spoken of. In this subject the Princess seemed much interested. About 9 or 10 fathoms further brought us to the end of the level, and the royal party were face to face with the difficulties of breaking the ground and continuing the level they had traversed. Here tools were in readiness, and these having been examined the Prince broke some of the ground, the Princess did the same, as did other noble ladies and gentlemen in succession. Each one broke copper ore for herself or himself, which I have little doubt will be treasured as memorials of their visit to the depths of Botallack. This is one of the hottest parts of the mine, and the fact was explained to the royal party, as well as the means which will be adopted to lessen the heat and improve the ventilation. We retraced our steps towards the shaft, and several intelligent enquiries were made on our way back. Where level and shaft unite all the visitors sat down; all seemed very glad to have a glass of champagne; and, without a hint to that effect, cordially drank "Success to Botallack." Then one of the party gave the "Health of the Prince and Princess," who presented their friends with some specimens of the copper ore they had themselves broken. In the company of the agents, some of the miners, and others, they spent a little longer time in the 205 fathom level—the Prince smoking a cigar—and then left; having apparently enjoyed the trip very much. I can only say it gave me great pleasure to do my best to amuse and, in some slight degree, to impart information to, our future Queen. (Cheers.)

## TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

There has been a more active market this week in Mining Shares than for some time past, and from present appearances there is every prospect of a very great improvement. There has been a good enquiry for leading dividend and progressive mines, and business done in mines that have been dormant for some time.

Frontino and Bolivia are in good demand, and prices steadily advancing.—There has been a good demand for Wheal Setons; several shares changed hands at advanced prices, and left off much firmer.—West Setons have been enquired for.—Cliffords have declined, but they show a tendency to improve.—East Bassets have fluctuated, but left off firm.—North Bassets are enquired for at slightly improved prices.—Bullers have been in good request at advanced prices, but left off strong sellers at minimum quotations.—South Condurrows have been in firm request, and many transactions followed.—East Carn Breas are in better demand, but do not improve in price.—Tincrofts have changed hands.—Frank Mills are sought for at rather better prices.—Great Laxeys are sought for at higher rates.—Great North Laxeys are quiet at present quotations.

Dales have been done at nominal figures.—East Grenville and Wheal Grenville have been dealt in at lower prices.—North Treskerbys have changed hands at fair market rates.—West Chivertons continue firm, and sought for.—Chivertons are less active, and offered at lower figures.—Wheal Rose have been offered at lower prices, but rather quiet.—Hallenbeagle, Great North Downs, and Great Wheal Busy continue to be dealt in at fair market quotations.—North Shepherds have been freely dealt in, at quoted prices.—North Janes have been done at nominal figures.—Great Vors have been in good demand, and several transactions effected at improved rates.—East Lovells have advanced, and more freely sought for.—Providence Mines shares have improved, and sought for.—Tolvaddens have varied, but likely to again improve.—East Caradons have changed hands, as usual, without any marked difference in price.—Marke Valleys are very quiet.—West Caradons have been done at lower rates.—Herodsfoots have been sought for at fair market prices.—Trelawny and Mary Ann have been in request, at minimum quotations.—South Lovells are enquired for.

Kelly Brays have been enquired for nominal figures.—Hingston Downs are sought for at advanced rates.—Prince of Wales and Sortridge have changed hands at nominal prices.—Gawtons have been enquired for at buyers' prices.—Crebor and East Wheal Russell are more than ordinarily quiet.—Lady Berthas have fluctuated, and left off weaker.

East Caradon.—Some of the ends in the caunter are not quite so good as last week, whilst the 60 and 70 east, on the new lode, have improved, making the aggregate worth of all the ends of greater value. The 70 east caunter is worth 5*l.*, the 80 east 5*l.*, and the 80 west and 90 east 12*l.* each per fathom. The 90 west is worth 5*l.* per fathom.—New Lode: The 60 east is worth 8*l.*, and the 70 east 6*l.* per fathom.

Devon Wheal Lopes.—The surface operations are progressing rapidly and satisfactorily, and the wheel-pit is in an advanced state. A large portion of the wheel is already on the mine, and the axle and other heavy portions are expected in a few days. As soon as the shaft is in fork to the 50 fathom level returns are fully anticipated, both of copper ore and blende.

Gawton.—The lode at the 50 continues to look very well, and so far as driven east maintains its value, producing 4 tons per fm. They will commence driving west as soon as sufficient room is afforded.

New East Birch Tor.—The clearing of the several levels is progressing very satisfactorily, and the stuff cleared shows good work for tin, leaving no doubt as to the value of the lodes. As soon as effectually cleared the ends, which will be driven in productive virgin ground, will make profitable returns.

Maudlin.—The shaft is now completed to the 80, and a cross-cut about being driven to cut the lode in that level. The lode in the 70 was represented to be of more than ordinary value, composed of rich grey, black, and yellow copper ore, but stated to have failed in depth. The prosecution of the present level will in a short time prove the worth of the undertaking. The 80 end is reported to be of a most promising character, the development of which is watched with deep interest. The lode cut in the western mine has not proved so productive as anticipated.

East Jane.—The probability of cutting the lode rich at the 48 increases as the cross-cut progresses, as the most favourable indications are daily appearing—about 3 fathoms more will reach the lode. The 36 south continues to look remarkably well, presenting the most encouraging prospects, and it is expected lead will predominate in the 48.

North Jane.—The operations at present are chiefly confined to the removal and re-erection of the engine, for the purpose of developing the Wheal Jane tin lode, which has proved so highly productive in the adjoining ground, and is looked upon as the champion or main lode of the district. They have commenced the new shaft, and are progressing with the works in connection with the alterations. During the past quarter the returns have been limited to the sale of a few tons of tin, silver-gossan, and mundic, which assists the extra expenditure involved.

Wheal Spargon.—The operations consist chiefly at present in clearing the shaft, levels, &c., which is going on rapidly and satisfactorily, and the lodes where seen to advantage show the remains of large and productive ones, and important discoveries are fully expected from the character of the lodes generally, and the highly favourable position of the property. They have made a very good discovery in the 60 in cutting ground for pitwork, which promises to open out well; it is now worth from 15*l.* to 16*l.* per fathom, with a long run of ground to be taken away at a low cost. There are other places looking most encouraging.

South Lovell is opening out remarkably well, and greatly improving as the operations progress. The lode in the bottom of the engine-shaft is worth upwards of 12*l.* per fathom, and improving; in driving east the lode is 2½ ft. wide, worth upwards of 25*l.* per fathom, but, according to private reports, the end is valued at from 30*l.* to 40*l.* per fathom, and approaching the junction of two other lodes; a further improvement may be fairly anticipated. The lode west produces rich stones of tin, showing a great tendency to improve as the end advances towards the great cross-course. There is a good lode in the north-eastern shaft, which promises to become a source of great value. In the adit west of shaft they have discovered a splendid-looking lode, worth from 8*l.* to 10*l.* per fathom at present, whilst its development is watched with great interest; this, with several other important points not yet opened to value, leaves every probability this mine will take a prominent position among the leading tin mines of the locality.

Tolvadden is represented to have very much improved in several important points, and promises to open some valuable ground in depth. The winze sinking below the 93 is yielding from 4 to 5 tons of yellow ore to the fathom, and the 103 is fast approaching the ore gone down from the above; and, from the general appearance and character of the lode, there appears very little doubt of a fine course of ore being laid open.

Clifford Amalgamated.—The operations in the eastern ground are laying open vast runs of valuable orey ground, the lode in the bottom of the mine yielding fully 8 tons of ore per fm., whilst other places are producing from 6 to 20 tons per fathom; and the mine generally never looked better than at the present time, with the exception of a temporary accident. A run has taken place between the 200 and 220 which will retard the usual returns for a short time from two of the most productive places; and as all the strength that can be rendered effective is being used to clear the obstruction, there is no doubt of it being efficiently completed in a short time. The extent of the run has been greatly exaggerated, probably from interested motives, as such casualties are too frequently magnified in the absence of practical information, or policy to effect specific objects. But from the most unquestionable source I learn that the accident is not of so serious an amount, but merely a delay in the usual monthly returns; and that the expenditure in extra labour in clearing will be more than amply repaid by the saving effected in taking away the lode by stoping. It is rather amazing that whilst the alarmed shareholders are hastening to effect a sale those practically connected with the mine are smiling at the credulity of the community.

Breyntail Mine.—The prospects here are encouraging, so far as regards the development of the lode in the 20 and 30, where some good orey ground has been met with for several fathoms in length. The 30 end is producing saving work, and the back is yielding about 6 cwts. of lead per fm. The 30 east is yielding good stones of lead. The development of the levels east is likely to open some good profitable ground, as large deposits of lead were met with in the adit level, a continuation of which will, in all probability, be met with as these points are being prosecuted.

James Lean.

From Mr. Edward Cooke:—There are symptoms of an improving market, and in the event of an advance in metals, of which there are indications, presenting themselves, there will be more business doing the latter part of the year than for some time past. The heavy decline in the price of Clifford shares during the week has arisen from a senseless panic. Notwithstanding all that has been said to the contrary, I have it from the best authority that the late "run" of ground below the 20 does not justify a decline in the market value of Clifford Amalgamated Mine to the extent of 25,000*l.* The manager of the mine has held 55 shares for a long period, and has no intention of selling a share. He considers there is no cause for the shareholders being at all alarmed, and that everything at the mine will soon be going on regularly again. To sell the shares now is suicidal, for after a drop of 10*l.* there will be a great rush, and no time should be lost in buying. Before this run took place the shares were selling at 27*l.* to 28*l.*, and paying about 12 per cent. per annum, and when the run is thoroughly cleared the accident will have proved an advantage to the working of these extensive mines, and the usual samplings will be resumed. East Lovell, it may be truly, was never in such a favourable position as at the present time. In addition to the rich lodes known as the north and south ones, there are two others, known as the Middle lode and the Turnpike lode, that have as yet not been wrought to any great extent, but which indicates to become very valuable adjuncts to the future of the mine. There have also been some very interesting discoveries made to the eastward of the present workings, and in the direction of Great East Lovell, tending to prove that in another in that direction. Altogether, East Lovell is in a most prosperous state, and the shares are free from violent fluctuations, owing to the genuine honesty of the present management, in whom the utmost confidence is most deservedly placed. The shares are steadily improving in price, and, before the end of the year, I shall not be surprised to see them higher in price than they have ever yet been. There are several other mines in the locality, that are just now selling at ridiculous low prices, that may be bought into with the certainty of a rise. East Bassett shares have had a considerable rise, owing to an improvement. Great Vor shares have been steady at previous quotations. A rise of 5*l.* or 10*l.* in tin would, of course, benefit many mines, and selling, as this mine does, from 65 to 70 tons per month, it would benefit the company to a large extent. It is, without question, a splendid property. To the east of Great Wheal Vor is East Wheal Vor, which contains prospects of more than an ordinary character, and having the same lodes as Great Wheal Vor. Owing to the long-prevailing dulness of the market, the shares in East Vor may be bought at a price that can scarcely be called a speculation.

I again call attention to Chiverton Moor and North Chiverton. The former of these mines contains the same rich lode as West Chiverton, which mine is selling at West Chiverton is selling at about 215,000*l.* Surely Chiverton Moor, with and upon did prospects as it possesses, is worth attention, seeing that the mine, with its new efficient plant of machinery, is selling at about 10,000*l.*, which is barely the cost price. When the lode is cut in the 40, it may be very difficult to obtain the shares at three times their present price. Great Laxeys have been in good demand, at an advance price, owing to the bonus of 4s., in addition to the usual dividend. Great North Laxeys are well worth the attention of capitalists. There are ample funds in hand for the development of the mine for a long period, irrespective of any further discoveries of lead; but of this there is no doubt on the minds of those who know the locality of Great North Laxey, and its proximity to Great Laxey. Among the progressive copper mines in Cornwall, there is not a mine of greater promise than Tresavean. This mine is under the management of Capt. James Pope, of Wheal Basset, and the purser is Mr. R. Michel, of Tresavean House. He was the purser during the time of Tresavean Mine's great prosperity, when 105*l.* per share was paid bi-monthly in dividends. Upon the same lode that is now being wrought in Tresavean Mine the former company divided 448,000*l.* in dividends between the years of 1827 and 1857, and it was not really from the poverty of the mine that the operations were stopped. The present company are limiting their workings to the eastern part of the sett, from which they anticipate good results when a moderate depth is attained. Already the working expenses are met partly by the returns, and at the last meeting no call was required. Here is a mine in the best mining district that Cornwall has produced, in 501 shares only, and selling at less than 5*l.* per share, or, say, 2500*l.* for its entirety. If the mine were divided into four times the number of shares it would be selling at treble the present price. This will, very probably, be a subdivision of the shares at the next meeting, in December. It is one of the most legitimate and economically worked mines in Cornwall, and which no one need fear to invest.

From Mr. J. B. Reynolds:—The markets have been rather animated this week, and, excepting Clifford Amalgamated, prices have been very well maintained. In some instances advanced prices have been demanded and obtained, in consequence of the improved state of the properties. Amongst those mines which have received considerable support may be reckoned—East Basset, East Lovell, Great Laxey, Great Vor, and Buller, whilst East Caradon, South Callington, East Carn Brea, Tolvaddon, Rosewarne United, Mary Ann, East Rosewarne, West Caradon, &c., have found ready buyers. I regret that I cannot this week give my readers some particulars respecting the Callington and other districts, but hope in next week's Journal to make up for this disappointment. In the meantime, it is my duty to say that the statements I also then advance will be far more favourable, as far as the Callington district is concerned, than any I have as yet put forward, and will be full of interest.

From Mr. John Batters:—There has been less buoyancy in the stock markets this week, although the tendency has, on the whole, been favourable. The fine weather, and the consequent progress of the harvest, have given good support to quotations, whilst the steady influx of bullion at the Bank, which led to some expectation of a reduction in the rate of discount for a time, also encouraged purchasers, and prices very generally improved; nevertheless, the markets have lacked the activity that was noticeable a week ago, and although some of the railway stocks, banking, and financial shares have sustained an important rise, the advance has not been extended to the English funds, Consols being, if anything, weaker; nor have foreign stocks made any appreciable movement. Those exhibiting the greatest rise are Great Northern, Lancashire and Yorkshire, and Metropolitan Railways, which at their best point were 3 per cent. higher. General Credit, Alliance, Imperial, London Joint-Stock, and one or two other banking and financial companies were also about 1 per cent. better, but on the breaking up of the Bank court without making any alteration in the rate, the markets became flat, and the heaviness has been increased by the unfavourable Bank return of last evening, which shows a reduction of 167,337*l.* in the bullion, and 247,400*l.* in the reserve of notes, notwithstanding that gold to the amount of 135,000*l.* had been sent into the Bank since the previous return. In British mines several important fluctuations have occurred, principally in the ascendant; this will be more so soon after the dealers and brokers have got over their holidays, when we may look forward to a large business in this class of property, which now ranks as the first in the kingdom. Clifford Amalgamated, from a run of ground and no dividend at the last meeting, has been unusually depressed; all this is only temporary, and by a certain class has been made the most of. To investors this is indeed a favourable opportunity, and one that should not be a moment be delayed. At Chiverton the clearing of the levels is being prosecuted with energy; a few weeks will now show something good here, and if William's lode be struck in big whole, and of which there cannot be a doubt, the result must be a favourable one. I would say to shareholders who have bought at a higher price buy more, and average the chance, for a great profit here is certain. East Basset and Buller have had a considerable rise in price; these are both safe properties to buy into at the low prices they have been selling at lately. East Lovell is also an improving share, and the dividend is expected to be 10s.

From Mr. Wm. Lelean:—The improvement which I last week noticed as having shown itself in the tone and tendency of the stock and share markets has, as I anticipated, developed itself still further. Stock of almost every description, British and foreign, has gone up in price, as have also the shares in some of the high class companies, while there is a still further manifestation of activity and firmness in the markets generally. The weather has much to do with this, as being so propitious for getting in the rest of the harvest in the North; and, concurrently with this, the demand for gold for abroad has so far subsided that the Bank is getting back a considerable portion of what had been withdrawn from it. There is no pressure for money either at the Bank or in the open market; the demand is, in fact, rather slack, and it is just possible, though not, I think, very probable, that before this is seen the official rate of discount may be reduced; I believe it to be more likely next week than this, however. In the meantime, there is a decided improvement every where, and a revival the demand for metals for the Indian and American markets, which is generally looked for, will increase the activity and augment the profits of the mining interest, after its long and severe depression. The fluctuation which has shown itself in mining shares during the last 8 or 10 days is evidence of some activity in the markets, for in no case has the rise or fall in prices been caused by any variation in the real value of the property, excepting in East Basset shares, which have risen from 18*l.* to 28*l.* within ten days or a fortnight, the cause being a considerable improvement in the mine. The fall in the price of West Seton, which pays a dividend of about 50 per cent., has been caused only by the sale of a few shares, the whole number being so limited—only 400—that the slightest transaction visibly affects the market. The report made at the meeting of the shareholders in the Providence Mines, held last week, was a satisfactory one, as was also the quarterly dividend of 1*l.* 2s. 6d. per 1-120th share of 10*l.* 6s. 7d. The accounts showed sales of tin and copper ore sold and held over during the three months amounting to 6389*l.* 14s. 3d., producing a nett profit of 1437*l.* 5s. 10d. It appears that the present workings of the mines, since 1852, have realised 394,404*l.* 8s., and that the dividends disbursed upon the capital paid up to 1848, amounting to 11,569*l.* 8s. 1d., reached nearly 88,000*l.* At the meeting of Wheal Margaret, held on the same day as that of Providence, it was reported that the sales had defrayed the expenses of the three months' workings, with a prospect of increasing the returns in future. From Great South Chiverton the report still tells of the uninterrupted progress of the works, and Capt. John Nanscrow confidently speaks of having the engine at work at his stipulated time. The shareholders have good reason to be satisfied with their property, and the way in which it is handled.

The Rosewarne Consols also report very satisfactorily. In both the 70 and 80 fathom levels, driving east, the lode improves, while the 80 west is yielding good stones of copper, and the stope in the back of the 70 east is now worth 12*l.* per fathom. A week or two will probably place this enterprise in a much higher position. The mine is rich, the machinery is first-rate, and the shares are now to be got at an extremely low price. They should be bought to hold, for a moderate time, at least. Great Laxey shares maintain their improved price with firmness, holders generally being indisposed to sell, nor is there much doing in the other Laxeys—North, Reinnie, or East. The holders are pretty well satisfied that they have mines that will become highly productive with a moderate time, and they are disposed to wait and partake of the profits. At South Herodsfoot a considerable improvement has taken place in the character of the ground, and I should not be at all surprised to see the shares soon take a sudden and considerable leap upwards, which they will surely do as soon as they cut the lode in the 70 fathom level cross-cut west, as the Herodsfoot did when they cut this same lode there. In addition to these mines, the shares in which are all to be urged upon the notice of speculators and investors, at their current prices, I would mention Reinnie Laxey, the Chivertons, East Carn Brea, and East Rosewarne. The time is favourable for the purchase of shares, more so than it will be, in all probability, a month hence. As I have already said, the market is exhibiting a more active appearance, and shares that North Basset, Clifford Amalgamated, East Basset, the Chivertons, East Lovell, Hingston Down, Great Wheal Vor, and Rosewarne Consols have been enquired for, and some of them freely purchased, at improved prices.

Sale of Mine Shares by Public Auction.—Mr. T. P. Thomas held one of his periodical sales of mining shares on Thursday, when amongst other property sold were shares in Roskearnoweth, South Grenville, Trewastha, South Condurrow, Tolvadden, Ramsay Lead Mining and Smelting (Canada), Cuddra, East Providence, Wheal Grenville, East Grenville, East Rosewarne, North Downs, North Treskerby, and Dealis Walls. The sale was well attended, and the lots spiritedly contested.

Sale of Mine Shares by Auction.—On Friday last, an auction was held at Tabb's Hotel, Redruth, to sell West Damsel, Wheal Union, and other mine shares, the property of the late Mr. Edwin Ley, which was well attended by the mining dealers, brokers, and adventurers, showing there is no lack of purchasers where there is a chance of buying at fair value, but it is evident the opinions varied with respect to the value of the shares, as only two mines were sold, namely—30 North Bassets at 16, and

East Carn Brea at 5*l.* 12s., also 20 at 5*l.* 11s., with 2½ per cent. commission to the auctioneer. No offer was made for the Wheal Unions or South Carn Brea: 33*l.* 10s. was the highest bid for West Damsel, but, as the reserve price was 49*l.*, they were not sold. Neither were the Camborne Veans; they were bought in at 24s.; the highest offer was 2s. 6d., the market price being 2s. 6d. The auctioneer's offer of 2s. 6d. each for the East Downs was the only one.—*West Briton.*

## FOREIGN MINES.

ALAMILLOS.—Aug. 26: In the cross-cut north from San Rafael shaft, in the fourth level, the ground is particularly hard for driving. We expect to be very near the end of the lode by the end of this month. In the cross-cut south from same shaft the ground is somewhat improved. During the past month the second level, east from San Francisco shaft, has opened a good piece of tribute ground, worth 1½ ton per fathom. In the second level, west of same shaft, the lode is strong, containing quartz, with carbonate of lime and lead ore, worth for the latter 1½ ton per fathom. The lode stopped down from the side of the 1st level, west of San Francisco shaft, has yielded some good lead stuff. The cross-cut north from Cologan's shaft has intersected some small branches. The lode in the second level, east of San Enrique shaft, is very changeable; it has opened good ground in the past month, but is now very small. The second level, east of La Magdalena shaft, has opened a very fine piece of ground, but in the present end the lode is poor. In the third level, east of Taylor's shaft, the lode is large and strong, chiefly composed of carbonate of lime and lead ore. In the third level, west of same shaft, there is no improvement to notice. The third level, east of Esteban's winze, is being driven to meet the last-named end, and is not far from it. The third level, east of Antonio's winze, although not so good as it was, is still opening a productive piece of ground, worth 1½ ton per fathom. The lode in the third level, west of same winze, is disarranged and unproductive. In the third level, east of San Adriano shaft, the lode is of a promising and productive character, being worth 2 tons per fathom. The lode in the third level, west of same shaft, is in a very unsettled state, being near the main lode. In the bottom of the second level, west of same shaft, there is a good piece of lead, but the upper part is quite unproductive. The first level, east and west of San Yago shaft, has been holed to old workings, which appear to be extensive, and we pass below the bottom of the level. In San Jose shaft there is a very strong cross-course, the men are put to drive in a northerly direction to cut the lode. In the second level, west of San Jose shaft, we expect to cut the lode very shortly. The lode in the second level, east of Crosby's shaft, has fallen off in value during the last few days. In the second level, west of same shaft, the lode is irregular and disarranged. The second cross-cut, south of Crosby's shaft, is started with a view to intersect the south lode, which is not far distant.—Shafts and Winzes: The sumpmen in Taylor's shaft have been engaged during the greater part of the month in cutting a plat for cistern and bearers. La Magdalena shaft has passed through the main slide, which has thrown the lode north, and beyond the reach of the shaft. The lode in Gines' winze is small and poor, and the ground hard for sinking. Jose's winze is passing through a very fine lode, worth 2¼ tons per fathom, and is comparatively easy for sinking. The lode in Acedo's winze has changed very unfavourably.—General Remarks: The lack of labourers in every department of the mine is causing much inconvenience. The stopes are, on the whole, without any alteration. The steam crusher will be set to work in the course of the present month. We estimate the raisings for September at 140 tons.

LINARES.—Aug. 26: South Lode—West of Engine-shaft: In the 110, west of 138 winze, there are still some stones of lead. The lode in the 61, west of Crosby's shaft, has fallen off in value very much during the past fortnight, and is now worth 1½ ton per fm. In the 51, west of the same shaft, the lode is unproductive.—East of Engine-shaft: In the 110, east of engine-shaft, we are still driving on the north part of the lode, where it is large, and spotted with lead. There is not yet any improvement in the 95, east of the 144 winze.—North Lode: In the 85, east of Field's shaft, the lode is large and strong, and contains good stones of lead in the upper part of the end.—Shafts and Winzes: The ground in Santo Tomas engine-shaft is very hard, we expect to reach the necessary depth for a 120 fm. level this month. In Warne's shaft the lode is large and strong, and of a very promising appearance; the shaftmen are getting on well with their work; the lode is worth 2 tons per fm. The ground in Crosby's shaft is hard, wet, and exceedingly difficult for sinking. In Padillas' winze the lode is of a kindly appearance, it is slightly in advance of the 95; lode worth 1 ton per fm. In the 146 winze there is a great increase of water.—General Remarks: The tribute department is without any unusual fluctuation; it now requires all the leading stuff our machines and horse-whim can draw to keep up the present rate of raisings. All the engines, except the eastern whim, which has been undergoing repairs all last week, are in good working order. We estimate the raisings for Sept. at 300 tons.

FORTUNA.—Aug. 26: Canada Incosa—West of Engine-shaft: The lode in the 100, west of O'Shea's shaft, is very regular and compact, worth 1½ ton per fm. In the 90, west of Henty's shaft, the lode is not so productive as it was, but is still opening good tribute ground, worth 1 ton per fathom. The 80, west of Lopez' winze, is opening a very valuable piece of ground, worth 3 tons per fathom. The lode in the 70, west of Salino's winze, is very small, and unproductive.—East of Engine-shaft: The lode in the 70, west of Grande's winze, is large, composed of quartz, carbonate of lime, and very fine stones of lead ore. In the 70, east of the same winze, the lode is larger than it has been, and is letting out plenty of water. The lode in the 45, east of Danielsen's winze, is not looking so well as it was. In the 30, east of Nunez' winze, the lode is broken up by cross branches, producing stones of lead, but not enough to value.—Shafts and Winzes: In El Clavel sump-winze, below the 100, the lode is large, composed of sulphate of lime, quartz, and lead ore, worth for the latter 1½ ton per fathom. In Cortes' winze there is no alteration worthy of notice. The lode in Mateo's winze is large and open, and has a very kindly appearance. Leon's winze is still going down in a very productive lode, worth 3 tons per fathom.—South Lode: In the 30, west of San Pedro shaft, the lode is small at present, with a little lead, but not enough to value. The lode in the 30, east of the same shaft, is large, principally consisting of quartz and lead, worth for the latter 1½ ton per fathom. In the 30, west of Frederico's shaft, the lode is large, open, and easy for driving. The lode in the 30, east of same shaft, continues small.—Los Salidos Mine: In the 90, west of Andre's winze, the ground is very hard. The 75, west of Gimine's winze, is still looking well, and opening a valuable piece of tribute ground, worth 2½ ton per fathom. The lode in the 65, west of Juan' winze, is rather small, and the ground hard for driving. The lode in the 55, west of San Carlos shaft, is very compact and regular, which looks well for our western ground; the lode is worth 2 tons per fathom. The 45, west of Roque's winze, is unproductive.—East of Engine-shaft: The lode in the 90, east of Pintado's winze, has greatly fallen off of late; it still contains good stones of lead, but not enough to value. In the 75, east of Cologan's shaft, there is nothing new to notice. The 65, east of Miguel's winze, is opening good tribute ground, worth 2 tons per fathom.—Shafts and Winzes: The lode in Morris's shaft is very open and kindly, worth 2 tons per fathom, and ground moderately easy for sinking. In San Pablo's shaft the lode continues small, and the ground hard. Buenos Amigos shaft is going down in a very fine lode, worth 2¼ tons per fathom. Bartolo's winze is holed to the 55 fm. level by a borer-hole, and will be completed shortly. We have again drawn the water from Juarez' and Castra's winzes, and set each of them.

NEW WILDBERG.—J. Sanders, Sept. 2: Carter's shaft is 3 lachters below the 40 lachter level. The new pitwork has arrived at Cologne. The 40 cross-cut south, driving through the Erbteilfstergang, is still unproductive. No lode has been met with in the cross-cut north, but the ground is not quite so hard as formerly. The lode in the 30 lachter level, driving towards Davey's sink, is unproductive; a kluft has been met with, which is letting out a great deal of water. The 30 west, on the south part of the Erbteilfstergang, is still worth about 1 ton per lachter. Being short of hands, nothing has been done in the sink below the 30, on Conder's shoot of ore, for the past fortnight, but I am pleased to say that several men have come within the last two or three days, and the sinking will be resumed next week. The stopes above the level are worth 2¼ tons of ore per lachter. Davey's sink, below the 20, is worth at present 2½ tons per lachter, and the stopes above the level 1½ ton per lachter. The 20, east of Carter's shaft, is unproductive, and letting out a great quantity of water; the same level, east of Michael's shaft, is worth ½ ton of ore per lachter. In the deep adit, on the supposed Johannes Trüm, towards the Dornergang, we have stoped about 9 ft. above the level; the lode in this place will yield 2 tons of ore per lachter for 2 lachters in length, and we have now set a pitch in the bottom of the level, and as soon as we can put in stull, &c., we shall have two tribute pitches in this place. On the same lode, driving towards the Erbteilfstergang, it is yielding stones of ore occasionally. The tribute pitch below the 10, referred to a fortnight since, is worth 3 tons per lachter. There is no change to notice in any of the other tribute bargains. I am glad to say we have found what we believe to be the Dornergang at surface. In the second pit there is a mass of lode stuff 3 lachters in width: we shall now sink to prove it. Finding our views confirmed, there are then two distinct lodes east of Carter's shaft.

PONTGIBAUD.—Captain Rickard, Sept. 2: Roure: The lode in the 100 metre level, north of Richards's shaft, is 6 ft. wide, composed chiefly of quartz, with stones of ore. The same level south is in a kindly lode, yielding saving work, worth ¼ ton per fm. The 60 metre level south yields ¼ ton of ore per fm. The 40 metre level, south of Agnes' shaft, yields 1 ton of ore per fm. The 20, south of Virginie's shaft, yields 1¼ ton of ore per fm. The rise in back of this level opens tribute ground. The adit, south of the same shaft, is being driven on what appears to be the main part of the lode, which yields saving work; the whole of the lode is 7 metres wide, composed chiefly of a dark friable quartz. The stollen south, on the western part of the lode, is speedy for driving, but the lode is poor.—La Grange: The 40, north of Noskey's, yields some saving work, but is not rich. The 20 north is in a kindly lode, showing spots of ore. The adit north opens tribute ground worth ½ ton per fm. Our stopes and tribute pitches continue to yield a large quantity of coarse work. The deep adit, west from La Rancoule, is in speedy ground for driving, but no lode yet met with.—Mioche: The clearing and repairing of the 60, north of Taylor's shaft, proceeds favourably. The driving of the adit north, on No. 6 lode, goes on well. The end is soft and unproductive. Our two adit cross-cuts west are in hard spary ground. The tribute pitches continue to yield a small quantity of ore.—La Brousse: The lode in the 20, south of Basset's shaft, is very good, yielding 4 tons of ore per fm. The same level, north of shaft, yields 2½ tons, and the adit, south of little shaft, ¾ ton of ore per fathom. The winze sinking in this level yields ¾ ton of ore per fathom. The adit cross-cut, west from the Meadow, proceeds well, and the mine altogether opens out splendidly.—Pranal: The 70 north, on Susan's lode, yields stones of blende, with a little lead ore. The 50 north, on both parts of Susan's, yields stones of ore and blende. The 30 north yields ¼ ton of ore per fm. The 8, north and south of No. 2 cross-cut, is poor.—Surface: We have taken out foundation, and nearly completed the walls of a new dry at Roure, in order to prevent the miners from changing their clothes on the boilers, which is at the same time dangerous and inconvenient. Our dressing has been carried on pretty well, except at La Rancoule, where we have worked but half the time, and, therefore, have a great accumulation. La Brousse has been a considerable help this month; the whole of the two parcels came from the 20 metre level. Our samplings have amounted to 252 tons.

EL CHICO SILVER MINING AND REDUCTION COMPANY.—Mine of San Juan de Rayas: Mr. J. R. Rule reports the discovery of a vein of silver ore of high ley in the western extremity of the shaft of San Pedro, at about 25 fms. from the surface. Eleven assays of the ore have been made, the lowest giving 107½ ozs., the highest 967, and the average being 340 ozs. of silver to the ton. A torta from this vicinity will soon be sent for reduction to the company's hacienda of San Pascual. Samples of the ore may be seen at the company's office.

SANTA BARBARA.—Capt. Bryant, July 28: Reduction Department: Stone stamped from June 20 to July 20, No. 1 shaft and north bottoms, 236 tons: No. 2 south bottoms and adit level, 224 tons: total, 460 tons. Produce, 1504 ozs.=3·27 ozs. per ton. The produce is rather less per ton than usual, occasioned by the breaking of the axle of No. 1 stamps, which prevented our stamping refuse stone and re-stamping sand; there are also several tons of stone unstamped; we are getting on pretty well with the repairs of No. 1 stamps.—Mine: In No. 2, or south bottoms, the shaft or deepest part in this continues much the same, lode 6 ft. wide. Stope south, under adit level, 8 ft. wide, and south in adit level and above 7 to 5 ft. wide. We have commenced a new shaft from surface, which has become necessary for drawing stone from this part of the mine, and hope to get it pretty well completed before the rainy season sets in. In No. 1, or north bottoms, the lode in the shaft continues about the same size—4 feet wide; I had expected from indications that it would have opened out ere this, but so far am disappointed; the indications still continue, and I hope to see an alteration soon.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending September 6 was 12,808*l.* 7s. 4*d.*

## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

PROSPER UNITED.—The 317 tons of copper ore have realised this week 1115*l.* 13s., against only 961*l.* for 332 tons last month.

CASTELL CARN DOCHAN.—The returns of Gold for the month of August are 104 ozs. 3 dwts. 12 grs., from 158 tons—making a total of 481 ozs., from 418 tons 18¼ cwts. of lode-stuff.

NEW HENDRA.—This young mine, under active management, already shows indications of becoming a valuable property: 200 fms. have been laid open on the course of a large productive lode, producing fine stones of tin.

TRESAVEAN AND TRETHARRUP.—It may not be generally known that this mine divided, from 1827 to 1857, no less a sum than 450,880*l.*, or 4696*l.* 15s. per (1-96th) share. The ore sales during that period realised 1,216,996*l.*, of which Tresavean produced 956,029*l.*, and Tretharrup 260,967*l.* The dividends paid were at the rate of about 7s. 4d. in 1*l.* upon the whole return, including dues. The mine is again opening out in a most encouraging manner.

CHIVERTON MOOR.—An important point will be attained in about six weeks from the present time—the cutting of the lode in the 40 fathom level from surface. As the 30 fathom level was productive of lead, there seems good ground for the opinion generally entertained in the locality that something of importance will be found in the 40; and this opinion is considerably strengthened by the fact that this sett is immediately contiguous to West Chiverton, where all the rich bunches of lead rapidly dip towards Chiverton Moor.

EAST TRESAVEAN.—This mine is situated to the east of the Tresavean Mine, and adjoining it. The old Tresavean Mine is well known as one of the most productive mines ever worked in Cornwall. The geological condition of both is identical. The same lodes run through the setts. As might be supposed, the works of exploration now carried out upon the veins are opening up some very interesting features, resembling those of the old Tresavean. From the character of these indications, some very great and important discoveries may soon be expected.

REINNIE LAXEY.—A tourist and shareholder having lately visited this mine, writes—Nothing can be more satisfactory than the change that has taken place for the better since my last visit. The main shaft is down 15 fms.; there is a great improvement here; the branch of lead is about 3 in. wide. The agent by whom I was accompanied expressed himself in the most sanguine terms respecting this property, and assured me it was his firm conviction that it would prove as great a prize as any on the island.

SOUTH LOVELL.—The operations are progressing so satisfactorily that it will soon be necessary to erect stamps. As the development of the property is proceeded with the general indications strikingly resemble those of its rich neighbour, East Wheal Lovell.

NEW CLIFFORD.—The operations are progressing in a most favourable manner. The engine-shaft is down 26 fathoms, at which point the large increase of water (a favourable indication) obliges the suspension of the sinking until the engine is completed, which is now in course of erection, and will be set at work by the end of next month; the ground through which they have been sinking is everything that a mine could desire, and all parties interested in this enterprise feel convinced that they are in possession of a valuable property, situated, as it is, in the heart of the richest copper and tin district in the world.

FURZE HILL WOOD MINE.—This mine is looking well. The stope in the 40 east being worth 11*l.*, and worked at a cost of 1*l.* 15s. The main lode is expected to be cut daily at the 54, and from its fine appearance at the 40, and small branches containing tin passing through the cross-cut, a rich lode is anticipated. Levels will be extended into the new ground, and valuable discoveries be made, when the mine will become a great favourite. About 6 tons of tin will be sold this month.

THE ABERAMAN IRONWORKS COMPANY.—The official liquidator, Mr. Quilter, has filed a bill in Chancery against the promoters of the Aberaman Company, to compel them to refund the 75,000*l.* in cash, and also the 75,000*l.* in 6 per cent. bonds, received by them from the company as part payment of the promotion money. It is mentioned in the bill that, although the negociations were made through Mr. Wickens alone, the arrangements were made on the behalf of himself and his co-promoters, the names of the whole of them have, therefore, been included as defendants. The connection between the company and the property having already completely ceased, the litigation will be entirely in the joint interest of the company and the shareholders. It is anticipated that the first hearing of the case will be taken before the Lord Chancellor, at his private residence, in the course of next week.

THE RUSSIAN (VYKSOUNSKY) IRONWORKS COMPANY.—Special reference was made in the Journal of Aug. 19 to the favourable report which Capt. Hobart had (on behalf of the directors) made upon the character and capabilities of these extensive works, for the purchase of which this company was formed. The report has, within the past few days, been forwarded to the shareholders, and it is satisfactory to observe that it in every respect more than confirms the statements put forward in the prospectus of the company. It appears that the estate consists of about 540,000 acres of land (which is considerably in excess of the quantity named in the prospectus), most of which literally abounds with iron ore of the finest description, which lies almost on the surface of the ground. This ore is different in quality, inasmuch as there is a remarkably fine white ore, capable of being converted into the finest steel (a point for consideration hereafter as regards the expense of introducing the Bessemer process), and there is also a large quantity of black ore of the best quality, fit for iron for machinery, telegraph wire, &c. At the time of Captain Hobart's visit, there were thirteen iron factories in full operation, and in spite of the bad management which existed in every branch of the business, were yielding a good profit. Consequent upon the refusal of the Stock Exchange Committee to appoint a special settling day, and the privilege of quotation in the Official List, upon the ground that there was a material variation existing between the prospectus issued and the Articles of Association, the directors have convened a special meeting, to be held on Wednesday, when a resolution will be submitted, to the effect that the 26th article of the company's Articles of Association be rescinded, and that in lieu thereof the following clause be enacted—"That the company may from time to time, in extraordinary general meeting, increase the capital of the company to the extent of 500,000*l.* over and above the nominal capital of 500,000*l.*" It may be mentioned that the power given to the directors by the existing article (and which it is now proposed to rescind), to increase the capital of the company without the express sanction of the shareholders, was that to which the Committee took objection, although, singularly enough, the same power is vested in other boards of directors—among others, the China Steam and Labuan Coal Company—to which the committee did not object, but, on the contrary, granted a special settling-day and quotation in the Official List. The directors of the Russian Ironworks Company, referring to this anomaly, state that the question as to how far the committee were justified in giving effect to an objection to which they appear hitherto to have attached no importance, has been very widely discussed, and, therefore, they do not wish to reopen it: but upon the ground that as the interests of the company require that the shares should have that recognition of the Stock Exchange which the importance of the company entitles them to, they have resolved to recommend to the shareholders the rescinding of the objectionable clause, so as to remove the only barrier which appears to exist to a settlement and quotation being at once granted. Prior to the issue of the notice convening the meeting above referred to, several contradictory statements were very freely circulated as to the probable action of the directors in the present unexpected collapse. One rumour was to the effect that they had decided upon returning the deposit-money, less 1*l.* per share, to liquidate the expenditure necessarily incurred in the launching of the enterprise, while others stated that even among the directors themselves there was considerable diversity of opinion as to which course should be adopted, some urging that the deposit-money should be returned in full, the majority, however, being strongly of opinion that the object for which the company was formed should be vigorously and persistently prosecuted.

## PRICES OF MATERIALS,

As charged at the PROVIDENCE MINES during the following mines:—

| | April. | May. | June. |
|---|---|---|---|
| Common iron.....per cwt. | 9s. 6d. | — | 9s. 6d. |
| ⅞ steel borer ..... „ | 45 0 | — | — |
| 2-inch patent nails .....per 1000 | 2 8 | — | — |
| Iron shovels .....per cwt. | — | 28 0 | — |
| Steel point ditto ..... „ | — | 48 0 | — |
| White lead ..... „ | 24 0 | — | 24 0 |
| Leather .....per lb. | 1 8 | — | — |
| Norway timber .....per foot | 8d.-9d. | 0 8 | 0 8 |
| Yellow pine ditto ..... „ | 1 3 | — | — |
| M. C. coals (contract) .....per ton | 11 5 | 11 4 | 11 6 |
| Best candles (delivered free).per doz. | 5 3 | 5 3 | 5 3 |
| 1st P. Y. C. tallow (ditto)..per cwt. | 45 6 | — | 44 9 |
| Olive oil .....per gal. | — | 5 3 | — |
| Powder .....per 100 lbs. | 40 0 | 40 0 | — |
| Safety-fuse .....per coil | 0 4 | 0 4 | 0 4 |

SAFETY CAN FOR HYDRO-CARBON OILS.—Two American inventors—Messrs. Perkins and House—have patented a can that will protect benzine or any other hydro-carbon fluid from the danger of explosion. The principle on which it operates is similar to that embodied by Sir Humphry Davy in his safety-lamp.

GUNPOWDER EXPLOSIONS.—The following table shows a summary of the results of gunpowder explosions during the last ten years:—Nov. 15, 1855, French siege train, 92 lives lost; July 11, 1856, Salonica, 100; Nov. 18, 1857, Mayence, 25; March 30, 1859, Hounslow Powder Mills 7,; Aug. 6, 1859, Ballincollig Powder Mills, 5; Sept 9, 1862, Powder Works near Redruth, 5; Oct. 1, 1864, Erith Magazines, 10; Oct. 4, 1864, Powder Mills, near St. Petersburg, 9; Nov. 7, 1864, Davington Powder Works, 2; Dec. 14, 1864, Her Majesty's ship Bombay, 91; Jan. 18, 1865, Peninsular and Oriental steamer Rangoon, 2; May 24, 1865, Magazine at Mobile, 300—total 548.

# Mining Correspondence.

## BRITISH MINES.

BEDFORD CONSOLS.—Captain Mitchell, Sept. 7: On Saturday last the cross-cuts were set to drive north and south in the middle adit level, by six men, at 10*l.* 10s. per fathom, stented the month, or cut the elvan or lode. There has no change taken place in the character of the ground at either point to notice since last reported.

BEDFORD UNITED.—J. Phillips, Sept. 6: The two stopes in back of the 130 west will each produce 3½ tons of ore per fathom. There are four stopes in back of the 115 west, worth on an average 3 tons each of ore per fathom. The lode in the 103 west is still worth 4 tons of ore per fm. We are driving east on the same lode, which is also worth 4 tons per fm. The stope in the back of this level is worth 3 tons of ore per fm. The stope in back of the 58 east will produce 2½ tons of ore per fm. We are driving by the side of the north lode in the 75 east and west, and the 62 east.

BEDOL-AUR.—Crofts' shaft is in rather different ground to last week. We have now large stones, intermixed with rough gravel, which is an indication of rock. The Brynia lode, driving north, has improved, now yielding from 15 cwts. to 1 ton; we have in this end a very strong lode, which I think will improve daily. We have about 3 tons of ore broken. There is no alteration in the cross-cut from the Cortia Waen lode.

BILLINS.—F. Evans, Sept. 7: In the 80 west the lode is 2½ feet wide, containing a little ore, but not yet to value, but the appearance of the lode is rather improved for lead. In the same level east there is no change to notice. The 70 east is poor. The same level west is very much improved, producing good stones of lead, and likely to become productive. We shall begin to sink the engine-shaft below the 80 without delay. Appearances in the 80 west are highly favourable.

BOSCAWEN.—Capt. Giles, Sept. 2: The lode in the 30 cross-cut, driving east from Hallenbeagle, is worth 4*l.* per fm.; we have cut through the cross-course; the ground is a little more favourable for driving. The ground is still favourable in the cross-cut south of Parry's shaft.

BOTTLE HILL.—J. Eddy, Sept. 6: The lode in the stopes east of new shaft, in back of the 24 and 12, is about the same size, and producing about the same quality tinstuff as when reported on last week. The lode west of new shaft is 8 ft. wide; the ground for the present is harder, and of late has been very coppery. We sold about 6 tons 12 cwts. of tin; more would have been sold, but we found the wits when we come to calcine it; it required to be burnt and redressed, some part of it three times. We had not sufficient time to clean up, being so very coppery. We are bidding fair for a larger sampling next.

BRIXHAM HEMATITE IRON.—W. Williams, Aug. 29: Our western level, from No. 1 shaft, at present is in much the same sort of ground as when last reported on Aug. 21, being very hard; little has been done since that date, delay being occasioned for want of air. I have during the past week put down pipes to ventilate the level, and am now enabled to resume the work. We commenced working our eastern incline on the 17th inst., since which time we have sent up by it 340 tons of ore, which have been shipped; the bottom of this incline is at present boulders of lime rock, which I am now going to sink through. Immediately to the south of the rails our lode is from 18 to 20 ft. wide, and will average 16 tons of ore per fathom. We may calculate upon sending up 150 tons per week for the next two months. The new cutting west is commenced the month 40 fms. from northern boundary and 30 fathoms from western boundary. We have opened 20 fms., at which length, when completed, will bring us in 20 ft. deep, at which point I then propose to drive a level to come into the lode 30 ft. deep. The whole of our attle or deads will be put to sea. This cutting will take some time and labour to complete, the ground being hard 6 ft. under the surface, but when completed I consider a first-rate thing for the mine.

BRONFLOYD UNITED.—T. Kemp, Sept. 6: Settings for September: The stopes east and west of winze, above the 52, to twelve men, at 80s. per fathom; the lode at this point has improved, and is now worth 35 cwts. per fathom. The stope in the bottom of the 40 is set to six men, at 65s. per fathom for a stent of 8 fms.; lode producing 1½ ton per fathom. The new shaft is progressingly favourably, and the men will finish their stent this week. I would recommend that the East Broyfloyd machinery be at once removed and re-erected in connection with this shaft, as it will take us about two months to get it into working order in its new position, and by that time it will be wanted. We are getting on favourably towards our next sampling, and I am pleased to say that the alteration I made in the motion of the crusher is a great advantage to our dressing department.

BRYNFORD HALL.—T. Pierce, Sept. 1: We are getting a little ore daily at bottom of Simmond's shaft, but not sufficient to value. I fully expect an alteration here for the better every day. The vein is taking all the water still, so we expect to come to some open ground in this vein soon. Acr-fer vein is rather hard and poor for ore; the vein is about 2 ft. wide, composed of spar, mixed all through with spots of ore, yet not sufficient to value; we are looking for an improvement daily.—Grainger's: The 86 yard level south-west is looking very promising, and yielding some ore every day. Our lot will be too small to put in for sale this month.

BRYN GWYN.—H. Nottingham, Sept. 6: The No. 2 joint, going west of Clarke's level, is yielding about the usual quantity of lead, but the lumps are of better quality than any we have before seen in this joint west of the level, from which we may hope there is a stronger run of ore before us. The stopes in bottom of the No. 2 joint, east of Clarke's level, are yielding very nice lumps of ore, but, in order to follow the run of ore ground, we must go on an incline, which will be troublesome and expensive. The rise we have made in the roof of Clarke's level, south of the above, is yielding some good lumps of ore occasionally. There is no change in any of the workings in bottom of the incline since my last. Since my last the new shaft has been sunk 2 fms. 3 ft., and we have not yet met with the rock.

BRYNTAIL.—J. Roach, Sept. 7: The stope in the back of the 30 west is producing but little ore at present, but I expect it will improve when another stope shall be put over the back. The ore ground in back of the 20 east is short, about 2 fms. long; from this we are breaking fine stones of ore, still the produce is not regular.

CAPE CORNWALL.—R. P. Goldworthy, Sept. 6: Our shaftmen are preparing to fix the skip-road from the 90 to the 100 fm. level. We are opening ground speedily in the 90. We have six men desuing the lode, which we shall take down next week. We are making good progress in the 70 west, the ground being soft. Our carpenters have fixed the stamps frames. We are pushing on the work connected with the stamps with all possible dispatch.

CARADON CONSOLS.—W. Rich, Sept. 5: There has been no material alteration in the south cross-cut during the past week; the end being in a beautiful soft elvan, is speedy for driving.

CARN CAMBORNE.—J. Seccombe, Sept. 4: The shaftmen have commenced driving the 50 cross-cut south.—North Lode: The lode in the 40 east and west is producing stones of copper ore. The stopes in the back of the 30 fm. level are yielding 2½ tons of ore per fathom.—South Lode: The lode in the 40 east is poor. The lode in the end west in this level has lately fallen off in value, the lode at present being small. The midway level, driving east, is producing stones of ore. The winze sinking below this level west is yielding 1 ton of ore per fathom.—Clarke's Lode: The winze sinking below the 13 is producing 2 tons of ore per fathom. The stopes on the average are yielding from 2 to 3 tons of ore per fathom.

CARNGLAZE UNITED.—W. Hosking, Sept. 4: The lode, in driving the 20, is taken down; it is 2 ft. wide, saving work; the same as last reported. I believe, by the appearance, as we drive east it will still improve the nearer we get to the junction, as we have branches still coming in from the south, that keep the ground a little favourable for driving, and letting out an increase of water. The length of ground driven on the engine lode by Saturday next will be 50 fms., and is being pushed on with all speed.

CENTRAL MINERA.—T. Hughes, Sept. 7: Victoria Engine-shaft: The ground in the cross-cut driving south to intersect the lode is without alteration, consisting of limestone of a very promising character. The lode in the 40 yard level, west of the winze, is worth 10 cwts. of lead per fm.—Edgworth's Shaft: The pitch in back of the 50 yard level is worth 10 cwts. of lead per fm.

CLARA UNITED.—J. Lester, Sept. 6: Llywernog: The winze sinking below the 40, west of engine-shaft, is now down 7 fms.; the lode is without alteration. The lode in the 50 west has much improved, and will now yield 25 cwts. of lead per fm. As soon as the winze is through it is proposed to sink the engine-shaft another 10 fathoms, and I have not the least doubt but that we shall be able to make returns that will reward you for your outlay.—Dolwen: The level is extended west of rise about 7 fms.; the lode is not looking so well. I am of opinion that we are nearly through the length of ore ground west. I have to-day put the men to open on the lode east of the point of its first intersection.

CLOWANCE WOOD.—E. Chegwin, Sept. 6: In the 20 cross-cut, driving north of engine-shaft, towards the north lode, the ground is spare, but the killas looking congenial for copper ore, and we see some veins of copper and mundic in driving; we have still more water flowing from it. This cross-cut is now driven from the engine-shaft about 11½ fms.; and if the lode continues its underlie from the adit to the 20, as in the adit level, we shall have about 3 fms. more to drive to cut the lode, which we expect will take about a month to complete from this time. When the lode is cut there is no doubt we shall have a good bunch of copper ore.

COPPER HILL.—A. Johns, Sept. 2: Paddon's Lode: In the 90 east no lode taken down since last reported. The 70 west 1 ton per fm. The stope in the bottom of the 70 fm. level 3 tons of good ore per fm.—Michell's Lode: The winze in the bottom of the 80 fm. level 1½ ton per fathom. The 80 east 1½ ton per fathom of low price ore; ground still easy for driving. No alteration in any other bargain.

CRENVER AND WHEAL ABRAHAM.—J. Vivian, Sept. 7: I have let the work of cutting cistern-plat, bearer-holes, and ground for the plunger connection, &c., in the 50, at Vivian's engine-shaft, to 16 men, and I am glad to see them making good progress, as we shall soon get our 90-inch engine to work, when our drainage will be carried on more than double as fast as it has been. The 80-in. engine and other machinery continue to work very satisfactorily, and we continue to raise large quantities of mundic, mixed strongly with yellow copper ore, from the backs of the shallow levels as we drain the mines.

CROWAN AND WENDRON.—R. Reynolds, Sept. 5: The shaftmen at present are engaged casing and dividing the engine-shaft, putting in ladder-road, &c., below the 36, and I hope in another week shall be ready to sink the shaft below the 48.

CROWAN CONSOLS.—J. Vivian, Sept. 6: The plat is thoroughly completed in the 42, and the cross-cut extended 1 fathom towards the Dumpling lode. In the 30, driving east of the engine-shaft, the lode is large and easy for excavating, occasionally producing stones of copper ore. The country rock, which we are driving through in the 20 fm. level north, is less mineralised than hitherto; we have, therefore, taken two men from this cross-cut and put them to drive west on the lode recently intersected, which produces good stones of copper ore, and is opening tribute ground.

CUDDRA.—F. Puckey, A. Cundy, Sept. 5: Since the last general meeting of adventurers we have sunk Walker's engine-shaft from 10 ft. below the 105 to the 117. The shaft has been cased and divided entirely between these two levels, and we have cut a plat in the 117. We have driven the 117, west of the shaft, by the side of the lode, 10 fms. At this point we are now cutting through the lode, and are into it about 9 ft., without reaching the north wall. The lode is hard and spare for cutting through. As far as seen, it is of the same kindly and promising character as in the 105 fm. level, and is composed of quartz, peach, and iron, and saving work for tin, with every prospect of improvement as we near the other wall. By extending this end a few fathoms further west a good run of tin ground will be reached, which has gone down from the 105 fathom level. This cross-cut is only about 6 fathoms behind No. 1 winze, sinking from the last-named level, through a good lode of tin. The 105 is extended west of the same shaft 43 fms.; for 34 fms. of this driving the lode has been very large, varying from 4 to 12 ft. wide, composed of quartz, peach, prian, gossan, and tin, and in places worth for the latter 30*l.* per fm. This level has been, without doubt, the best we have ever had in the mine, and there is every indication of our driving at present on the top of a good run of tin ground. In this end we are carrying about 6 ft. of the south part of the lode, which is worth for that width 12*l.* per fm. for tin. In No. 1 stope, in back of the 105, east of the cross-cut, the lode is 9 ft. wide, worth 8*l.* per fm. In No. 2 stope, west of the cross-cut, the lode is 7 ft. wide, worth 14*l.* per fm. In No. 3 stope, further west, the lode is 10 ft. wide, worth 12*l.* per fathom for that width. In No. 4, or western stope, the lode is 12 ft. wide, worth 12*l.* per fm. The lode in the above stopes is very large, but is not producing quite such good work for tin as when we commenced stoping in the back of the level, which is accounted for by a south lode intersecting the main lode; and above this intersection the lode is producing more gossan and iron. This change we may reasonably expect, as in the 90, over those stopes, the lode is unproductive; but below this

intersection it has very much improved in character, and is producing richer work for tin. No. 1 winze is sunk below the 105 fathom level 8 fms., and for the whole depth the lode has been, and is, very good for tin. In sinking we are carrying about 6 feet of the lode, and have not seen the north wall. The lode here is of an exceedingly promising character, composed of quartz, peach, iron, and tin, worth for the latter 30l. per fathom. This winze is about 6 fms. in advance of the 117, which is looking well for the productiveness of that level for tin, of which there is all but a certainty. From the 105 we have driven a cross-cut north 7 fms., and intersected the north lode; we have driven on it 6 ft. west; it is 2 ft. wide, and unproductive for tin at present. In the stope in the back of the 60 west the lode is 5 ft. wide, composed of quartz, peach, mundic, and tin, worth for the latter 10l. per fm. Since the last general meeting we have sold 42 tons 13 cwts. 3 qrs. 2 lbs. of black tin, for 2399l. 15s. 5d. This amount, if the price had been at 70l., would have been increased by 600l.; but, owing to the depressed state of the tin market, has been lost to this mine. In conclusion, we are of opinion that a good and profitable mine will be found in Cuddra by a little more perseverance and outlay. No indications can be stronger than those which are shown here of the gradual approach in depth of riches and permanency; and we feel very hopeful, indeed, as to the result of the next level, and that the adventurers will be amply repaid for their outlay and patience.

**DALE.**—R. Niness, Sept. 4: A further improvement has taken place in the vein during the past week.

**DARREN.**—R. Williams, Sept. 6: The stope in the back of the 15 west is worth about 12l. per fm.; lode about 10 ft. wide. The ground in Oliver's adit is much as for some time past, and there is no alteration in the character of the lode. The pitch in the back of level Coed is looking very well, and if it continues we shall have a good return of ore for the four men here engaged.

**EAST BOTTLE HILL.**—J. Eddy, Sept. 6: The lode in the end, west of cross-cut, is now 2¼ ft. wide, and very much improved in quality this last week; the lode to-day is worth from 8l. to 10l. per fm.; driving at 55s. per fm., and the backs can be stoped for about 25s. We are now laying open good tin ground, that can be taken away and leave a good profit to the adventurers. I am expecting a further improvement in the lode as we near the cross-course, this being the same that made the lode so rich both east and west of it in Bottle Hill Mine. I am happy to say the lode is equally as rich for tin in the back and bottom of the level as it is in the present end. I should recommend to open on the lode a few fathoms further, and if the lode continues to yield as at present I should then advise to put up stamps, and after its completion we should be able to make regular returns of tin.

**EAST CARADON.**—J. Seccombe, Sept. 6: Caunter Lode: The 70 east is worth 5l. per fathom; the 80 east, 5l.; the 80 west, 12l.; the 90 east, 12l.; and the 90 west, 5l. per fathom.—New Lode: The 60 east is worth 8l.; and the 70 east, 6l. per fm.

**EAST CARN BREA.**—T. Glanville, J. Scholar, Sept. 6: No. 3 Lode: In the 70, west of the cross-cut, the lode is producing 2 tons of copper ore per fathom. In the 70, east of the cross-course, the lode is producing 1 ton of ore per fathom. In the 60 west the lode is producing 1 ton of ore per fm. In the winze below the 60 the lode is producing 4 tons of ore per fm. In the 50 east the lode is producing 5 tons of ore per fm. In the rise above the 50 the lode is producing 4 tons of ore per fm.—No. 6 Lode: In the 40 east the lode is producing 4 tons of ore per fm. In the 40 west the lode is producing 2 tons of ore per fathom. In the rise above the 40 the lode is producing 3 tons of ore per fm.

**EAST GUNNISLAKE AND SOUTH BEDFORD.**—Jas. Phillips, Sept. 7: We are still driving by the side of the lode in the 36; the ground continues favourable for progress, and the branches are still bearing towards the lode. The lode in the deep adit is 5 ft. wide, composed of spar, prian, mundic, and ore, worth of the latter in the back of the end 1 ton per fm. The lode in the shallow adit is 2 ft. wide, composed of peach, mundic, and stones of ore; the ground is impregnated throughout with copper, and very favourable for progress; this is a very kindly end, and promises for an improvement.

**EAST JANE.**—T. Hodge, Sept. 7: The engine-shaft is below the 48 about 8 ft., the ground in which is spare for progress. The 48 cross-cut is driven west towards the lode about 4 fms.; the end is in a cross-course, which is letting out water, and occasionally producing stones of lead. We consider this a good indication for the lode being found productive when met with. In the 36 south end the lode is large, and letting out water freely; it is composed of friable spar, gossan, and spotted with lead—a fine looking lode, and will, in my opinion, be found highly productive in deeper working. We have suspended the end for the present, and put the men back about 5 fms. behind the end to cross-cut a part of the lode now standing in the side of the level. In the 36, driving north of cross-cut, on the western part, the lode is small and of no value. The adit north end is without change to notice since my last. The 26 cross-cut west is passing through a favourable channel of ground.

**EAST LAXEY.**—R. Rowe, Sept. 1: We have now the arms all in the wheel, and have commenced to put in the buckets. The pillars for the water troughs are all built, and the carpenters have finished the troughs. We are now busy building pillars for the rods, and preparing the latter. The position of the wheel, and the distance it is necessarily from the shaft, creates more than ordinary work, as we are laying out to command two shafts with one wheel. The engine-shaft on No. 2 lode is completed from surface to the adit level, and sunk 3 feet below. From the little we are yet able to see of the lode going down it is large and strong, and already yielding good stones of copper. You may be assured we are pushing everything as fast as possible.

**EAST PROVIDENCE.**—W. White, Sept. 6: Saturday last being our survey-day the following bargains were set:—Boorman's shaft to sink below the 70 by 12 men, at 20l. per fathom. This shaft is now down 4 fathoms 4 feet below the level; the lode here is 12 inches wide, producing a little tin, but not enough to value. The 70 to drive east of Boorman's by six men, at 8l. per fathom; lode 14 inches wide, producing good stones of tin. A cross-cut to drive south at this level by six men, at 8l. per fathom. The 60 to drive east of Boorman's by four men, at 6l. per fathom; the lode in this end is at present very small, and nothing to value. A winze to sink in bottom of the 60 east by six men, at 8l. per fathom; lode 18 inches wide, worth 12l. per fathom. A stope in back of the same level by four men, at 5l. per fathom; lode 12 inches wide, worth 6l. per fm. A pitch in bottom of the 50 fm. level, east of Boorman's, by two men; tribute 16s. in 1l.

**EAST ROSEWARNE.**—J. James, Sept. 7: At Hallett's shaft the lode is 9 in. wide, producing good stones of ore. In the 85 east the lode is split, and at present unproductive. In the 85 west the lode is 15 in. wide, composed of quartz, mundic, and copper ore, worth about 6l. per fm.; I expect this will improve in value shortly. In the winze sinking below the 75, west of Hallett's shaft, the lode is 15 in. wide, worth 15l. per fm. At King's shaft, sinking below the 75, the lode is small, producing a little ore, but not enough to value. The 75, east of King's, is suspended, being poor, and near the elvan course. In the 75, west of King's, the lode is 1 ft. wide, worth 16l. per fm. The stopes and tribute pitches are much as last reported.

**EAST SNAEFELL.**—R. Rowe, Sept. 1: Owing to the water we have suspended sinking on No. 2 lode, and resumed driving south; the lode at present is too large for the level; we are, therefore, only carrying a part, which is composed of a dark killas and quartz. Our object is to push on to the junction with the large east and west lode known to be standing ahead. On this lode we are driving north, or rather north-east. We are still in very shallow ground, and the lode yet unsettled; we are of opinion the main part of the lode is yet to the east of us. On No. 1 lode we are driving north-west, and find it about 3 ft. wide, composed of hard rock and spar, or quartz of a highly lead-bearing nature, but here we are yet very shallow.

**EAST ST. JUST UNITED.**—J. Carthew, P. Casley, Sept. 5: We are sinking Ageworth flat-rod engine-shaft below the deep adit level by six men and three boys—a kindly tin lode, tribute ground, producing good stones of tin. Sinking Cranjack engine-shaft below the 10, by four men; lode 12 in. wide, not to value. We are driving the 10, west from this shaft, in good looking tin ground; lode 18 in. wide. We are sinking a winze below the adit level, on this end, by two men—a kindly tin lode, 18 in. wide, producing good stones of tin. We expect the sumpmen will complete the skip-road from surface to the deep adit level this week. The engine-shaft, horse-whim, and shaft tackle are now complete. All our work at surface and underground is going on well.

**EAST WHEAL FLORENCE.**—W. Verran, Sept. 6: We are making good progress in sinking the engine-shaft, which is now about 9 fms. below the shallow adit in a light blue killas, with branches of mundic, and occasional spots of yellow ore, which we regard as a good indication for the next level, when we shall cross-cut the lode, which at the shallow adit is large and highly mineralised. In driving the deep adit east on the course of the lode, from the western part of the sett, we have lately had a great improvement; the lode in the end is larger and better defined than we have seen it since we commenced driving on its course, containing mundic, and copper ore in sufficient quantities to warrant the expectation of very large deposits as we get under the hill, and especially as we approach the large gossan lode some 80 or 90 fms. ahead of the present end, and running pretty nearly at right angles with the copper lode—in fact, the mine, on the whole, never looked so well as now.

**EAST WHEAL GRENVILLE.**—G. R. Odgers, Wm. Bennetts, Sept. 6: The lode in 85 west is 18 in. wide, producing a little tin, with stones of ore and mundic. The lode in the 75 east is 15 in. wide, of quartz, peach, &c., producing a little tin. The lode in the 75 west is 1 ft. wide, and producing ore and tin—a kindly lode. The lode in the stope above this level is worth 25l. per fm. The lode in the winze sinking below the 65, east of the shaft, is 2 ft. wide, and worth 6l. per fm. The lode in the stope above the 65 west is worth 8l. per fm. The lode in the 55 west is 18 in. wide, and worth 9l. per fm. for ore and tin. The lode in the stope below this level is worth 15l. per fm. The lode in the stope above this level is worth 5l. per fm. The pitches are producing about the same quantity of tin and ore as before.

**EAST WHEAL LOVELL.**—R. Quentrall, Sept. 6: At the turnpike shaft the lode, both east and west, is opening out satisfactorily. The middle lode is just as reported last week.—North Lode: We are preparing for sinking next week in a rich lode worth 100l. per fm. and upwards for the length of the shaft.—South Lode: There is still a rich lode in bottom of the 40 west. The stopes in back of the 40 east never looked so well as at present, and are worth 50l. per fm. and upwards, with every prospect of continuing. The men at the 26, at Burgan's, are engaged in removing some pitwork from the south shaft, preparatory to stoping some rich tin ground in a distinct bunch from the present stope.

**EAST WHEAL RUSSELL.**—J. Goldsworthy, Sept. 6: The sinking of Homersham's shaft is progressing satisfactorily. The ground in the 140 fm. level, east of Homersham's shaft, is tolerably favourable for progress. The lode is 2 ft. wide, composed of capel, prian, quartz, mundic, and a small proportion of yellow copper ore. In Courts's winze, sinking below the 130 fm. level, the ground is favourable. In the 130 fathom level, west of Soper's cross-cut, the driving by the side of the north lode having been suspended, the men are placed to cross-cut the lode, the result of which will be reported as the cross-cutting of the lode progresses. The same remarks will apply to the cross-cutting of the lode east of Soper's cross-cut. In the 130 fm. level, east of Soper's cross-cut, on the main part of the lode, the lode is 3 ft. wide, of a very promising character, and worth full 10l. per fm. The stope in the back of the 130 fm. level is worth 25l. per fm. There is no other change in any other part of the mine to call for any remark since last reported on.

**FRANK MILLS.**—J. P. Nicholls, Jᵒ. Cornish, R. Andrew, Sept. 6: Fair progress is still being made in sinking the engine-shaft below the 116. The part of the lode being carried in the 115 north (2 feet) consists chiefly of quartz and white iron, and yielding saving work. We have commenced to sink a winze in the bottom of the 100, just over the 115 end, where the lode is yielding ⅓ ton of lead ore per fathom. The three stopes in back of this (the 100) level are yielding respectively ½ ton 10 cwts., and 12 cwts. of lead ore per fathom. We expect to communicate the rise in back of the 100 with the 84 in about a week, when we shall resume driving the latter; the wide stopes in back of the 45, north of engine-shaft, are yielding 1½ and 2 tons per fm. respectively. We are putting out a cross-cut west from the 45, north of the engine-shaft, to intersect the western lodes, but nothing has been met with of any importance as yet. The tribute pitches at present in operation are yielding fair quantities of lead, &c. We purpose sampling on Friday next, the 8th inst., 155 tons of silver lead ore—80 tons of No. 1 and 75 tons of No. 2.

**FURSDON.**—J. Collins, Sept. 7: The branch in the shaft is still holding down, and is almost perpendicular; it is crossing the south-west corner; we have not much length opened on it; from what we see it is 1 ft. wide, composed of mundic, peach, and copper ore, worth 1½ ton of ore per fm.—a good-looking branch; the ground is a little harder, but congenial for copper, now 7 fms. 4 ft. below the 21. No change in the north cross-cut at the 21 west. The pitch in back of the 21 is yielding 3 tons of ore per fm. The pitch in the back of the 11 is a little improved. The pitch at the adit is yielding 2 tons of ore per fm. We calculate to sample for this month near 40 tons of ore; the shaft is sunk perpendicular.

**GAWTON COPPER.**—G. Rowe, Sept. 2: The lode in the 50, east from cross-cut, is still looking well, and worth 4 tons of good quality ore per fathom. The ground in the winze sinking below the 36 is stiff, and slow of progress. All other points of operation are progressing very satisfactorily. We are busily engaged in laying out a temporary dressing-floor at the new shaft in order to prepare the coming ore for the market.

**GLASGOW CARADON.**—W. Taylor, Sept. 5: We are making fair progress with the 78 fm. level cross-cut south towards M'Clure's and caunter lodes; ground of a favourable character. No change to notice in the 65 cross-cut north, only letting out a little more water. In the 65 west, M'Clure's lode is a little larger, and producing some good quality ore. The 65 west, on the caunter lode, is not looking so well as last reported; worth about 8l. per fm., but I look for a change for the better early: no other change to notice in the ends. The western winze, in bottom of the 52, is further drained by the 65 west; we have resumed the sinking of it—worth 25l. per fm. The stopes are producing about their usual quantities of ore, which we are preparing for the next sampling as fast as possible.

**GODOLPHIN HILL.**—J. Pope, jun., Sept. 6: The caunter lode in the deep adit level, driving south-east of Parson's shaft, is 2 ft. wide, very kindly in appearance, and producing saving work for tin. The new shaft sinking from surface to communicate with this level is down about 6 fms. So far as seen the lode is all taken away by the old workers. I have not the least doubt but that we shall find a good lode as soon as we reach the bottom of the old workings. In the shallow adit level, driving north-west of Derry shaft, to communicate with the new shaft, the lode is 1 ft. wide—saving work for tin. In the shallow adit level, driving south-east of Pump shaft, the lode is 1 ft. wide, very kindly in appearance—good saving work for tin. The stopes in the back of this level are without particular change.—North Lode: In the shallow adit level, driving east of new shaft, the lode is 10 in. wide, very much improved in appearance, producing rich quality tinstuff. Our tributers are working very regularly, and I think they are getting good wages.

**GOLCH HILL.**—We are still making plat, and have a very promising branch of lead in the end 3 in. wide, solid.

**GREAT BRIGAN.**—J. Tredinnick, Sept. 6: No lode has been taken down in the end driving west of the new shaft at the 10 during the past week, but we shall do so in a few days, and will let you know. The lode in the winze sinking below the above level looks kindly, and produces a little ore, but not to value. The stope in back of the 10, west of said shaft, is worth for copper ore 5l. per fm. The stope in back of the level, west of No. 2 winze, is worth 6l. per fm. for copper ore.

**GREAT DEVON AND BEDFORD** (Colcharton).—W. Skewis, J. Richards, Sept. 7: The cross-cut north from the 40 is extended about 6 ft.; no lode or branch has yet been met with, but, from the nature and size of the lode in the 30, we are strongly of opinion that at this level (the 40) it is still further north. The lode in the 40 east is about 2 ft. wide, composed of quartz, mundic, prian, and copper ore, a very fine looking lode, and we believe will soon prove productive. The lode in the 30 west is from 3 to 4 ft. wide, such as a strong, masterly lode, and yielding good stones of copper ore; this has yet to be proved at the 40, and from its appearance we are justified in expecting a good discovery of copper ore.

**GREAT NORTH DOWNS.**—J. W. Crase, C. M. Jenkin, Sept. 6: The lode in Vivian's engine-shaft continues to produce good stones of copper ore. King's shaft is sunk to the 86, and the driving commenced towards Sleggan's shaft, where the lode looks promising, and will produce 1 ton of copper ore per fm. No other change has taken place worthy of notice during the past week. We will send you a detailed report for the meeting to be held on Monday next.

**GREAT NORTH LAXEY.**—G. Rowe, Sept. 6: The 73 fm. level is now driven about 3 fms. south, the lode is 3 ft. wide, composed of very promising quartz and lead, for the latter worth ½ ton per fathom. There is a great deal of water coming out of the end, which is a good sign. In the north end the lode is about 1 foot wide, in tight ground, with a small rib of lead. In the 60 end the lode is about 1 foot wide, and in the bottom mixed throughout with lead. We are breaking some good ore in the roof of the 60. No change of note in the adits north and south this week.

**GREAT RETALLACK.**—W. H. Reynolds, Sept. 5: The ground in the adit end continues favourable for driving. Eight men have contracted to raise blende on the Big lode, dress, and make it marketable, at 8s. in 1l., which will pay well if the price continues as at present.

**GREAT SOUTH CHIVERTON.**—J. Nancarrow, Sept. 2: Gifford's engine-shaft is cased and divided to the adit level. The pitwork is in course of preparation, and the men will soon commence fixing it in the shaft. The engineers have got in the main beam of the engine, and will get in all the heavier parts next week. The masons have nearly finished the brickwork about the boiler, and are making good progress with the walls of the boiler-house. There is every prospect of the engine being ready to work at the appointed time.

**GREAT SOUTH TOLGUS.**—J. Daw, Sept. 6: In Lyle's shaft, sinking below the 166, the lode is split into two parts, and these are producing 1 ton of copper ore per fm. In the 166 east the lode is 1½ foot wide, producing good stones of copper ore. In the 166 west the lode is 2 feet wide, worth 4l. per fm. for tin. In the 154 east the lode is still disordered by the elvan. In the 154 west the lode is 2½ feet wide, producing low quality tinstuff. In the 125 fm. level, east of new shaft, the lode is 1 foot wide, producing stones of ore.

**GREAT WHEAL BUSY.**—J. Edwards, J. Tredinnick, C. Bawden, Sept. 2: In the 150, driving east from Harvey's engine-shaft, the lode is 18 in. wide, worth 8l. per fm. for tin and copper. The lode in Offord's shaft, sinking below the 140, is worth 45l. per fathom for tin and copper. The lode in the 140, east from said shaft, is 2 ft. wide, worth 10l. per fm. The lode in the 130, driving east from Offord's shaft, is 2 ft. wide, producing good stones of tin. The south lode in the 120, west from Offord's shaft, is 2 ft. wide, worth 6l. per fm. for tin and copper. We have let a winze to sink in bottom of the 120, east of Offord's shaft, over the 130 end. We have communicated the rise in back of the 110, east from Mathew's shaft, with the winze in bottom of the 100. We have let a pitch in back of the 110, east and west of the said winze, to eight men, at 5s. 6d. in 1l. The lode in the 100 end, east from Walker's shaft, is 5 ft. wide, worth 40l. per fm. for tin. We have let the stope in back of the said level on tribute to six men and three boys, at 5s. in 1l. The lode in Walker's shaft, sinking below the 90, is worth 50l. per fathom for tin. The lode in the 90 end, driving east from said shaft, is worth 20l. per fathom. The lode in the rise in back of the 90, against Walker's shaft, is worth 12l. per fathom. The lode in Walker's shaft, sinking below the 80, is worth 20l. per fm. The lode in the 70, driving east from said shaft, is producing saving work for tin of a kindly appearance. The lode in the rise in back of the said level, against Walker's shaft, is 2½ ft. wide, producing a little tin. We have communicated the rise in back of the 50 with Walker's shaft sinking below the 36. We have let the said shaft to sink below the 50, also let the 40 to drive east from Walker's shaft, a plat to cut, and the skip-road to fix from the 36 to surface. No change to notice in the 36 cross-cut, south of the said shaft, since last reported.

**GREAT WHEAL GRYLLS.**—Edward Rogers, Edmund Rogers, Sept. 7: Michell's Lode: The 12 is driving east of Michell's flat-rod shaft, at 1l. 7s. 6d. per fathom; the lode is 1 foot wide, saving work, but of low quality.—Stevens's Lode: The 12 is driving east of the cross-cut by six men, at 3l. 10s. per fathom; the lode is worth 4l. per per fathom. In the bottom of the adit we are sinking a winze by four men, at 2l. 10s. per fathom. The first 6 feet we sunk was worth 10l. per fathom, but at the present time the lode is poor, the tin bearing ground having dipped east, and from present appearances we shall cut it again by extending the 12 in that direction.

**GRYLLS WHEAL FLORENCE.**—Edward Rogers, Edmund Rogers, Sept. 5: The engine-shaft is down 5 fms. 1 ft. below the 12; the ground is without alteration since last reported on, being composed of spar and killas, of a hard texture. At the 12, driving north on the caunter, the lode is 2½ ft. wide, producing occasional stones of tin.

**GUNNISLAKE** (Clitters).—William Skewis, John Rodda, Sept. 7: The engine-shaft is cut down to the 12, below the deep adit, and plat is now being cut in that level. The lode in the adit east is improved, and worth 4l. per fathom for copper, and saving work for tin. The lode in the 24 east is yielding good saving work for tin and copper. The three stopes in the bottom of this level, west of engine-shaft, are worth 6l. 10s. per fathom each. The lode in the 36 east is worth 5l. per fathom. The two stopes in the back of this level are worth 5l. 10s. per fathom. The lode in the winze in the bottom of this level is worth 5l. per fathom. In the 36 west the lode is looking very promising, and yielding stamping work. The lode in the 10 east is large, and producing good saving work; an improvement is expected here when we get a little further from the cross-course. The stope in the back of this level is worth 10l. per fathom. The lode in the 10 west is producing saving work for tin. The three stopes in the back of this level are worth, on the average, 7l. per fathom, and the winze in the bottom is worth 5l. 10s. per fathom. All the operations in this mine are progressing satisfactorily, and the machinery is in good working condition.

**GWYDYR PARK CONSOLS.**—W. Smyth, Sept. 6: No change in Gwyn Lliffon adit since last reported. We shall take down the lode in Gwydyr middle level and rise, and send my report for the meeting. The dressing is going on as usual.

**HALLENBEAGLE.**—E. Richards, R. M. Kitto, Sept. 2: At Pinniger's engine-shaft, sinking below the 56, the ground is harder; lode 2 ft. wide, producing stones of ore, mundic, and quartz. We have communicated the 56, driving east of engine-shaft, with the 56, west of sump-winze. In the 56, driving west of Pinniger's engine-shaft, on south lode, the lode is 18 in. wide, worth 4l. per fm. In the 56, driving east of sump-winze, on north lode, the lode is 18 in. wide, worth 12l. per fm. At King's shaft, sinking below the 40, we have intersected a lode in the south side of the shaft, which underlies north, composed of mundic, quartz, and rich stones of copper ore; we have cut into it 4 ft., but have not yet found the south wall; lode of a very kindly appearance. The lode in the 40, driving east of King's shaft, on north lode, is 2½ ft. wide, producing stones of copper ore. The lode in the winze sinking below the 40, on north lode, is 6 in. wide, producing stones of ore. The lode in the 43, driving east of Reed's shaft, on Reed's lode, is 1 ft. wide, worth 6l. per fathom. The lode in the 43, driving west of Reed's shaft, on Reed's lode, is 10 in. wide, worth 3l. per fm.

**HARWOOD.**—J. Race, Sept. 4: There is no alteration worthy of notice at either Scar Head or Trough since my last report. We have 14 tons of ore on the floors at Scar Head, and a quantity more broken in the mine, so that I shall send samples for another sale.

**HAVAN.**—G. Jones, Sept 6: The shaftmen have been engaged stripping down the lode on the south side of the 20, opposite Carriston's shaft, where we noticed a small branch of ore turning in a little to the south side of the 20 east; this has greatly improved, and looks promising, producing about 1 ton of lead ore per fathom, but in consequence of this branch being so near the east end of the shaft it is inconvenient both to sink the shaft and cut down the branch simultaneously; we, therefore, consider it advisable to drive 2 or 3 fms. further on the course of this ore, and thus be enabled to sink the shaft more speedily, and also follow the branch should it continue. No change worth notice in the 20, driving east, since last report. The lode in the 20 west is less productive, worth from 2 to 3 cwts. per fm. No. 1 stope, in back of the 20 east, is worth from 10 to 12 cwts. per fm. No. 2 ditto yields about 1 ton per fm. No. 1 stope, in back of the 10 west, still produces about 1½ ton per fm. No. 4 stope, in back of the 10 east, is now being worked up to the old workings and suspended. We have also shifted the men from No. 2 stope, and from the cross-cut driving south from Seton's adit, down to the 20 to cut out some ground, and to prepare for sinking the winze down to the 30; we expect to be ready for this in the course of a week, and, judging from present appearances, the lode here should produce about 2 tons of lead ore per fm. The lode in the cross-cut south continues unproductive. We shipped, on 17th ult., 46 tons 2 cwts. 1 qr. of silver-lead ore to Messrs. Sims, Willyams, and Co., of Llanelly.

**HAWKMOOR.**—J. Richards, Sept. 5: The lode in the stopes in back of the 25 fathom level is worth 1 ton per fm.—West Hawkmoor: The sinking the ventilating shaft is progressing very satisfactorily. We hope to get a small parcel of copper ore for our next sampling.

**HINGSTON DOWN CONSOLS.**—T. Richards, Sept. 6: The 130, east of Bailey's engine-shaft, is worth 75l. per fm. The 130, west of Bailey's engine-shaft, is worth 60l. per fathom. There is nothing new elsewhere.

**KELLY BRAY.**—G. Rowe, Sept. 6: The lode in the flat-rod engine-shaft, sinking below the 30, is 2½ ft. wide, yielding 2 tons of ore per fm. The lode in the 30, east from shaft, is improving in character, and producing fine stones of ore. The lode in the stopes below the 30 west is without change, yielding in places, for nearly 10 fathoms in length, from 3 to 5 tons of good quality ore per fm.—in fact, it is considered the best run of ore ground ever discovered in the mine, and should it be found to continue, which I believe there is not much doubt of, our sampling will be over 100 tons of ore.

**LADY BERTHA.**—Capts. Harpur and Motherell, Sept. 7: In the 53, east of the new shaft, the men are driving by the side of the lode. The lode in the stopes in bottom of the 41 west is about 2 ft. wide, composed of mundic, quartz, and ore, worth of the latter 2 tons, or 8l. per fm. In the 41 east the ground continues easy for driving. The lode in the 30 east is about 5 ft. wide, composed of mundic, quartz, and ore, worth of the latter 5 tons, or 15l. per fm. The ground in the cross-cut driving south, in the 30 fm. level, is easy for driving. No change to notice in the tribute department.

**MAUDLIN.**—J. Tregay, Sept. 2: Old Mines: The shaftmen have been engaged this week in casing, dividing, and putting in bed-plank, ladders, &c.; footways from the to the 80, which is now completed. We shall commence driving a cross-cut in the at once. In the 80 east end the lode is very large, and no south wall, composed of mundic, peach, and stones of copper ore. In the 70 east nothing new since last week's report.—West Mine: The branches here produce spots of copper ore.

**MINERA UNION.**—W. T. Harris, Sept. 7: Brabner's Shaft: The pitch in bottom of the 80 yard level, north of No. 1 winze, is worth 1½ ton of lead per fm. The pitch back of this level, south of No. 2 winze, is worth 15 cwts. of lead per fm. The pitch in the bottom of the 60 yard level north is worth 8 cwts. per fm.—William's Shaft: The lode in the 60 yard level is worth 10 cwts. of lead per fm. The pitch in bottom this level north is worth 5 cwts. of lead per fm.

**MOLLAND.**—T. Bennetts, Sept. 6: The sumpmen are now engaged in dividing casing the shaft to the 72, which I hope they will complete this week, when shall be in a position to throw the kibble to bottom to draw off the stuff. The part of the lode on which we are rising in the back of the 62 east is about 4 ft. wide, little harder than last week, though producing good stones of ore occasionally. The south branch in the rise in the back of the 32 east is still continuous, being about wide, producing saving work; ground easy.

**NANGILES.**—J. Rowe, Sept. 6: We have succeeded better in working the of the engine-shaft during the past week; the shaft is down to the 119. We put the sumpmen to drive the cross-cut south towards the lode to-day; we expect we have 10 ft. to drive to cut it. The lode in the 107, west from the engine-shaft, is 4 ft. wide, with good stones of ore. The lode in the 107, east of the shaft, is 2 ft. wide, but We have a good improvement in the 96, west of the engine-shaft, on north part of the lode; the lode is 2 ft. wide, worth full 20l. per fm.; this part is standing north of the level for 20 fms. west. No. 1 stope below the 96, west of shaft, has improved to 20l. per fathom. Last setting-day we set a rise to four men over the 86, west from Bread and Cheese winze; the lode has improved, worth 10l. per fm.

**NANTEOS.**—R. Williams, Sept. 6: The lode in the east adit, driving east, is looking better. There is a strong mixture of lead throughout, and the water is issuing strongly from the breast, which seems to indicate a larger lode ahead; on the whole the end looks very promising indeed.

**NANTY.**—Sept. 6: The lode in the deep adit level, going north of boundary, is about 8 ft. wide, still of a very promising character, with strong eyes of ore, but irregular; we fancy from the appearance there must be ore in this ground higher up, but we are daily expecting to meet something good in the present end; we can then rise and prove the ground above. The lode in the 10, below the deep adit, north of engine-shaft, is 4 ft. wide, yielding on an average about 1 ton of lead ore per fathom; this level has been extended about 22 fms. north of engine-shaft. We have yet 12 fms. more to drive to communicate with the winze 35 fathoms north of engine-shaft; the lode in the same level going north of winze, is 4 ft. wide, showing a little ore, but not worth saving; this level is extended north of winze 17 fms. 3 ft., and in order to come to the run of ore ground which has been taken away above the deep adit, we have yet to drive 19 fms. 3 ft.

**NEW ROSEWARNE.**—E. George, Wm. Michell, Sept. 6: Bickford's shaft is sunk 8 fms. below the 84; lode 4 ft. wide, worth 8l. per fathom. The lode in the 84, east of Bickford's shaft, is 3 ft. wide, producing stones of grey copper ore; in the same level west it is 3 ft. wide, producing stones of tin and copper ore. The two stopes in the back of this level are each worth 10l. per fm. The stope in back of the same level, east of Bickford's shaft, is worth 6l. per fm. The lode in the 74, west of Bickford's shaft, producing good stones of copper ore. The stope in the back of this level is worth 10l. per fathom. The lode in the 67, west of Bickford's, is 3 ft. wide, producing a little tin. The winze sinking below this level, east of Bickford's shaft, is worth 10l. per fathom. The stope in back of the 58 is worth 6l. per fm. The lode in the 46, west of Bickford's shaft, is 2 ft. wide, unproductive.

**NEW TRELEIGH.**—Samuel Michell, Sept. 6: There is but little alteration in the mine during the past week. The lode in the 80, west of the cross-course, is yielding about 15 cwts. of ore per fathom. The 70, driving west, is worth 6l. per fathom. The 60 is hardly looking so well as it did; the lode is disordered by a cross branch, which will shortly disappear, and the lode, by all apperrance, will again prove productive. The stope in back of this level is worth 8l. per fathom.—New Mine: The lode at the shaft, sinking below the 40, is 2½ ft. wide, producing good stones of ore. The lode in the 40 east will turn out 12 cwts. of ore per fathom; the same level west will produce 15 cwts. of ore per fathom—a kindly lode. The lode in the rise above this level is worth 4l. per fathom. The lode in the winze sinking below the 40 is worth 3l. per fathom. We have 10 fms. more to drive the 40 east to reach the longitudinal point, and to intersect the 40, west of Carr's engine-shaft. The air in each mine is so tight that we find it difficult to work at times, but are in hopes that another month will bring us out of this difficulty.

**NEW WHEAL MARTHA.**—H. Rickard, G. Rickard, Sept. 7: The stope in the back of the 30 is without change since last week, worth 20l. per fm. The lode in the 11 west is becoming larger, consequently is a little stiffer for driving, yet this end will be holed by the time that Rickard's shaft is down, being now about 8 fms.; we can hear each other working very plain. The stopes in the bottom of Trawse adit is worth about per fm. The tribute pitches, on the whole, are much the same as last week.

**NORTH BULLER.**—R. Pryor, H. Harvey, Sept. 2: The 100 cross-cut, south of engine-shaft, is letting out more water, as if near the lode or branch.

**NORTH CHIVERTON.**—W. Hancock, Sept. 5: New Engine-shaft: We calculated to have been down by this time the required depth, so as to have commenced cutting plat, but have been prevented do so owing to a hard floor of spar which came in it; set to sink 3 feet more, by twelve men, case and divide the shaft, and fix sollar, per bargain of 12l. The old sump-shaft is cleared and secured 9 fathoms below the 40. During the last few days we have had a quantity of old timber again to contend with, which has made our progress rather slow, but we hope the worst of it is over, as we are of opinion we can see the back of the 50 fm. level plat; this we shall see more of in a few days. The lode in the 40 east, on the south part, is 3 ft. wide, not of much value at present for blende, but improving for lead, and will now produce of the latter per fathom—a very promising lode; set to drive by four men, the month, at 40s. per fm. The lode in the stope behind this end will produce 2½ tons of blende per fm.; set to stope by four men, 8 fms. stent, at 25s. per fathom. In the same level west the lode in the stope is 4 ft. wide, producing 1¾ ton of blende per fm., with occasional stones of lead; set to stope by two men and two boys, 6 fms. stent, at 30s. per fm. The lode in the winze sinking below this level is down 8 ft., and will produce for the length cut (9 feet) over 3½ tons of blende per fathom, and occasional rich stones of silver-lead; this augurs well for the level below—set to sink by six men, 4 fms. stent, at 3l. per fathom. We have set a winze to sink below the 30, and 14 fathoms east of the old sump-shaft, on the north part of the lode, by two men, 3 fathoms stent, to prove the ground, and also to ventilate the 40, on the south part when forth to it and cross-cut to this part. There is not sufficient of it done yet to say much about its value; it is, however, producing stones of lead and blende. We have two pitches set in the back of this level—No. 1, to two men and one boy, at 20s. per ton for blende, and 5l. per ton for lead; No. 2, to two men, at 25s. per ton for blende, and the same as the former for lead, and to have only the crop blende. On the whole, the old mine, so far as we have seen of it in the 40, assumes a very promising appearance.

**NORTH DEVON SILVER-LEAD.**—J. Blamey, Sept. 7: The cross-cut north at the adit is set to two men and two boys, 3 fms., at 3l. 10s. per fm.—end producing small strings of ore. The stope in back of 10 fm. level, on middle lode, is set to four men and one boy, 4 fms., at 4l. per fm.; value of the lode 9l. per fm. The winze sinking below the 20, on the caunter lode, is set to six men and two boys, 2 fms., at 14l. per fm.; lode worth about 40l. per fm. The rise and stope in back of the 30 is set to six men and two boys, 4 fms., at 7l. 10s. per fm.; lode worth about 26l. per fm. The 40 east, on the middle lode, is set to six men and two boys, 3 fms., at 6l. 10s. per fm.; lode producing blende and spar. The 50 east, on the main lode, is set to four men and one boy, 2 fms., at 7l. 10s. per fm.; lode poor. There is a capel crossing the end, which will probably change the lode. If this end does not turn out so well as I expect by the end of the month, I should like to put the men to drive on the main lode at the 10 fathom level east, as it is in my opinion a very kindly place for making ore; we should also intersect the caunter further south than we have yet seen it. We have not yet received the stamps.

**NORTH DOLCOATH.**—Capts. Vivian and Paull, Sept. 2: In the 85 west the lode is about 5 ft. wide, yielding good stones of yellow copper ore. In the 70 south the cross-course is about 2 ft. wide, composed principally of white iron, quartz and mundic, spotted with yellow copper ore.

**NORTH DOWNS.**—F. Pryor, John Grenfell, Sept. 5: The sinking of King's engine-shaft below the 85, and the driving of the 50 cross-cut, are progressing satisfactorily, but we have not yet cut the lode in the cross-cut. Some years since a cross-cut was driven south at the 10, and a lode intersected about 80 fms. south of main lode, which produced stones of ore, but as at that time the deep adit was not cleared, doubts were entertained that the water might break through and drown the mine, and to prevent which a dam was put in to keep back the water. Since that the deep adit has been cleared, and the danger removed. We are now engaged taking out the said dam, and throwing air in the cross-cut, so as to open on the lode referred to; this will assist us in judging of the whereabouts of the lode in the 50 cross-cut, which we are now anxious to meet with. Nothing new in any other part of the mine.

**NORTH JANE.**—J. Rowe, August 30: Soon after the last quarterly meeting of the shareholders we were about preparing for the removal of the engine to explore Wheal Jane tin lode, as previously recommended and decided upon. We had made nearly ½ mile of new roads, and had opened two quarries. All this work is now completed. The new engine-house is in course of erection, and we hope it will be ready to receive the engine within three weeks from this date. We have commenced sinking the new shaft, which is 11 ft. long by 7 ft. wide; it is down 7 fms., sinking by six men and three boys, extent 10 fms., for 70l., or 7l. per fm. We have a little water at the shaft, but not so much as to hinder us from sinking with good speed; the ground is very favourable. The sinking of the shaft will be prosecuted with all possible speed to the depth of about 50 fms., when we fully expect to meet with Wheal Jane great tin lode, which is the main lode of the district; and when intersected I have every confidence that profitable results will soon follow.

**NORTH MINERA.**—Sept. 6: The eastern shaft, sinking below the 40 fathom level is still in shale; it is now down 8 fathoms 3 ft. below the 40. The level driving east in the back of the 25 fm. level is looking well, and will produce 2 tons of lead ore per fm. This level is now driven 2 fms. 3 ft. from the eastern end of the rise. The stope in the bottom of the 35 yard level is without alteration, and will produce 1½ ton of lead ore per fm. I have set a cross-cut to drive north, in the end of the 25 fm. level west, to four men, at 5l. 10s. per fm. This cross-cut has been driven 3 ft., ground very promising. We have 16 tons of ore in the bing, and are going well with the dressing.

**NORTH SHEPHERDS.**—H. Bennetts, Sept. 6: Decimus engine-shaft is set to sink below the 40 by eight men, 10 fms. certain, at 14l. per fm. The 40 end west is set to four men, at 2l. per fm.; the lode is 1 ft. wide, and has a very promising appearance. The 30 end is set to drive west by four men, at 2l. 5s. per fm.; the lode is improving, and producing rich stones of lead. Rye's shaft is not yet communicated to the rise in the 30, but we expect every hour to hole; sinking by six men, at 5l. per fm. We have set a stope in back of the 30 by two men, at 15s. per fm., to stope for lead. Also a stope in back of the 20, to stope for lead, by two men, at 15s. per fm. The adit end is set to drive east by four men, at 3l. per fm.; the lode in this end is much improved.

**NORTH WHEAL BASSET.**—Wm. Roberts, Sept. 6: On the main lode, in the west, the lode is 3½ ft. wide, all saving work for tin. In the winze sinking under the 112 the lode is 2½ ft. wide, producing a little tin. In the 82 west the lode is small and the lode is 5 ft. wide, worth 4l. per fm. for tin. In the the lode is 1 ft. wide, yielding good stones unproductive.—North Lode: In the 42 east the lode is 1½ ft. wide, producing 2 tons of copper ore; in the same level west the lode is about 1½ ft. wide, producing stones of good ore per fm. In the winze under the 32 the lode 1 ft. wide, producing stones of good

**NORTH TRESKERBY.**—Richard Pryor, John Tregoning, Thomas Jenkin, Sept. 7: The lode in the 110, east of engine-shaft, continues without change since our last report. —Tresidder's Shaft: The lode at this shaft, sinking below the 110, is 3 ft. wide, producing good stones of copper ore—a kindly lode. The lode in the 110, east of this shaft, driven is worth 4 tons per fathom, or 25l., with a good appearance. The last 30 fms. driven has been in a course of ore which has varied in value from 25l. to 40l. per fathom. The lode in this level, west of shaft, is 3½ ft. wide, worth 1 ton of copper ore per fm. An important improvement may be daily expected at this point, as the end is getting near the course of ore met with in the level above. The lode in the 100 east has very much improved in appearance and character, it now being 3 ft. wide, worth full 2 tons of copper ore per fathom. The lode in No. 3 winze, sinking below this level, is 4 feet wide, worth 5 tons of copper ore per fathom, or 30l.; this winze is down 7 fms. below the level, and 7 fms. in advance of the 110 end. The lode in the stope, east of No. 1

winze, is worth 20l. per fathom The lode in the 90 is 3½ ft. wide, and at present only producing stones of copper ore, but the end is letting out a quantity of water, which is a good indication. The lode in the stopes in back of this level is worth 12l. per fm. The lode in No. 3 winze, sinking below the 77, and 9 fms. in advance of the 90 end, is worth 3 tons of copper ore per fathom, or 18l. Our next sampling will be about 330 tons of copper ore, 160 or 170 tons of which will come from the ends, winzes, and two stopes, and we are glad to say the mine, on the whole, has not looked so well as at present for the last two years.

OKEL TOR.—W. B. Collom, W. Metherell, Sept. 6: The stopes in the intermediate level, in the back of the 80, are yielding 3 tons of ore per fathom. The lode in Burley's winze, in the bottom of the 65, is looking most encouraging, and will yield 4 tons of ore per fathom. In the 65 end the lode will yield 4 tons of ore per fathom. Gourd's end and Start's stopes (formerly Gourd's pitch), in the back of the 65, are looking very well, and will yield 7 tons of ore each per fathom. The four other stopes in the back of the 65 will yield 6 tons of ore each per fathom. The water in the 50 cross-cut south is increasing. There is a good orey lode in the 35 end which will yield 8 tons of ore per fm.

OLD GUNNISLAKE.—W. G. Gard, J. Phillips, Sept. 7: We have this day taken down the lode in Parker's shaft, and find it presents appearances more favourable than we have ever seen before; it is 3½ ft. wide, composed of splendid gossan, spotted with rich yellow ore. We have not yet cut the caunter lode, but are continually cutting more water, from which we augur it cannot be far ahead of us. We are glad to inform you that in Michael's shaft we have this day reached the back of the plat at the 8 under adit. The incline and all other operations are progressing satisfactorily.

PAR CONSOLS.—F. Puckey, T. Rich, J. Hosking, September 4: Copper part of the Mine—Gossan Lode: In the 50, east of Treffry's north shaft, the lode is 6 ft. wide, and of a very kindly character, composed of quartz, prian, peach, black jack, and spots of copper ore. In the 80, west of the same shaft, on the north part of Treffry's lode, the lode is 1 ft. wide, but unproductive. In the 60 cross-cut, driving south from Treffry's shaft, the ground is at present hard, and spare for driving.—North Lode: In the 40, east of Treffry's shaft, the lode is 2½ ft. wide, composed of quartz, peach, green carbonate, and yellow copper ore, and kindly for improvement. In the 30, east of the rise, the lode is much improved, and is now 2 ft. wide, worth 10l. per fm.; in the same level, west of the rise, the lode is 20 in. wide, and worth 8l. per fathom. In the 40 east, on Roger's lode, the lode is 1 ft. wide, but unproductive. During the past month our prospects, on the whole, have a little improved in this part of the mine.—Western, or Tin part of the Mine—Puckey's Lode: In Puckey's north shaft, sinking below the 150, the lode is 5 ft. wide, and for the length of the shaft (12 feet) is worth 12l. per fm. In the 150, west of the same shaft, the lode is 6 ft. wide, and worth 8l. per fm. In the 135 west the lode is 2 ft. wide, producing a little tin, but not sufficient to value. In the 110, west of Puckey's shaft, the lode is 2½ ft. wide, and worth 6l. per fm.; in the same level east the lode is 1½ ft. wide, producing saving work for tin. The lode in the winze sinking below the 100 west is 3½ ft. wide, and worth 10l. per fm. In the 30, west of Edgcumbe's shaft, the lode is 2 ft. wide, and worth for tin and copper 12l. per fathom. The other parts of the mine are without alteration.

PEDN-AN-DREA UNITED.—W. Tregay, James Thomas, Sept. 2: Sump: The 130, east end, is worth 8l. per fathom; the 130 west, 7l. per fathom. In the 130 north cross-cut nothing of importance intersected. The 130 east, on Skimmers's lode, is worth 10l. per fathom. The 120 west winze is worth 20l. per fathom, and no north or south wall; lode carried 6 ft. wide. The 110, east end, is worth 10l. per fathom. In the 90 west the rise is worth 3l. per fathom.—Cobbler's: The 110 east is worth 11l. per fathom; the 110 west, 5l., but a very small part of the lode is being carried out in this end. The 100, west end, is worth 4l. per fathom; 90, east end, 4l.; 90 east rise, 8l.; 60 east winze, 14l. per fathom. In the 68 west winze the lode is small, producing stones of tin. At the new shaft the lode is thrown down by a cross branch, and at present under the foot-wall, the shaft being sunk so as to reach it in a fathom or two sinking. We sold, on Thursday last, 11 tons 10 cwts. 3 qrs. 23 lbs. of black tin for 630l. 14s. 7d.

PENTRE LYGAN.—F. Evans, Sept. 7: The lode in the 40 is improving as we drive on it eastward; it produces some lead ore, is about 2½ ft. wide, and composed principally of spar and calamine; the indications are highly encouraging for lead, and the lode altogether is most promising.

PRINCE OF WALES.—W. Gifford, Sept. 5: At the 45 cross-cut, south of Watson's shaft, we have driven 2 fms., the ground being principally killas; we are constantly cutting more water in the end. The tributers are engaged in cleaning their stuff, putting in stull, &c.

PROSPER UNITED.—John Nicholls, W. H. Martin, William Millett, Sept. 7: The 40 and 50, west of Hand's, are without change since last report. The lode in the 60 west continues to present favourable indications. The lode in the 70 west has improved a little, and is now worth 8l. per fathom for tin. No. 1 winze, in the bottom of this level, will produce 4½ tons of copper ore per fathom. The cross-cut south from the 80 is expected to reach the lode in a few feet driving. Hand's shaft is being sunk with good speed, but there is no improvement in the lode. Hill's shaft is without change. No. 1 winze in the 80, west of Louisa's, is looking a shade better for tin. No change in any other part of the mine.

REDMOOR.—T. Taylor, Sept. 6: We are opening west on the lode cut in the cross-cut north; it is about 18 in. wide, containing a little black ore, mundic, and peach, not enough to save. The lode in the east end is the full width of the level, and yielding some good saving work.

ROSECLIFF AND TOLCARNE.—Richard Pryor, Sept. 2: The masons are making rapid progress in the building of the engine-house, and if the weather continues fine we hope it will be up and ready for roofing in eight or ten days' time. The horse-whim is erected, and the men are now busily engaged in fixing shaft-tackle, making whim round, &c. All other surface works are going on satisfactorily, and no time will be lost in completing the engine-hourse, as we do not think we shall be able to sink much deeper without the engine, the lode at Lindo's engine-shaft being so large, and letting out a quantity of water, which is a good indication.

ROSEWARNE CONSOLS.—J. Nancarrow, R. Knuckey, Sept. 5: The men are making good progress in cutting plat at the 99, at Ellen's, and will soon be driving eastward. The ground in the 80 east is greatly improved, and there are spots of ore in the lode. The lode in the 70 east has for the last 6 feet driven been worth 5l. per fm., and looks very promising. The stope in back is worth 12l. per fm. The 80, west of sump, yields good stones of ore. The lode in the 70 west is small. There is no important alteration to report in the pitches. The machinery is in good order.

ROSEWARNE UNITED.—T. Richards and Son, E. Carthew, Wm. Temby, Sept. 7: The lode in the 70, west of the engine-shaft, is worth 9l. per fathom. The lode in the 60, west of the engine-shaft, is worth 6l. per fathom. The lode in the 60 east is unproductive. The lode in the 50 west is worth 5l. per fathom. There is no further change in any of the other tutwork bargains, and the pitches still continue to look very well.

SORTRIDGE CONSOLS.—R. Jackson, Sept. 7: In the 50 east of Mayne's cross-cut, on No. 5 south lode, the lode is 1½ ft. wide, composed of spar, gossan, mundic, and a little ore. In the 50 east of Mayne's cross-cut, on No. 1 south lode, the lode is 1 ft. wide, yielding good stones of copper ore. In the 20 east of White's rise, on the north part of the main lode, the lode is 3 ft. wide, yielding good stones of ore, but not to value. In the 10 fm. level, west of White's rise, on the south part of the main lode, the lode is 3 ft. wide, worth ½ ton of good ore per fm. There is no change to notice in any other part of the mine.

SOUTH ALFRED CONSOLS.—H. Skewes, Sept. 6: The engine-shaft is sunk 3 fms. 1 ft. below the 20; lode 2 feet wide, of a promising character, composed of quartz and peach, producing good stones of lead and copper ores. We have suspended the driving of the 20, east and west of engine-shaft, and have put the men to sink the eastern shaft from the 10 to the 20. Three more fathoms are now sunk, which, when holed, will ventilate the mine, after which we shall resume driving this level with all practicable dispatch, and, judging from the present appearance, we expect to meet with important discoveries in depth.

SOUTH CALLINGTON.—J. Spargo, Sept. 7: In my last week's report I stated that the lode was improved in the 12 fm. level end, and I have now the pleasure to say that since that report the lode has again considerably improved, both in size and quality; it is now 3 ft. wide, good saving work, and has every appearance of still further improvement. All our machinery is working well, and in good order, and we shall soon be in a position to commence driving the 20 end, so as to lay open stopes for the market at that level, and then to commence sinking the engine-shaft 10 fms. deeper, at which depth there is not a doubt on my mind but that we shall have a solid course of lead.

SOUTH CARADON WHEAL HOOPER.—Wm. C. Cock, Sept. 2: Our progress in cutting down the flat-rod shaft, &c., has not been quite so good this week, owing to the men being engaged about other work.

SOUTH CARN BREA.—I. Richards, Sept. 4: Flat-rod Shaft: The lode in the 128 east is 3½ ft. wide, and consists of capel, peach, quartz, mundic, and some saving work for tin ore. In the 118 east the lode is 4 ft. wide, composed of capel, peach, quartz, mundic, and a little of both tin and copper ores.—New Shaft: In the 108 east the lode is 3½ ft. wide, composed of peach, capel, quartz, and good stones of copper and tin ores.

SOUTH CONDURROW.—J. Vivian and Son, Sept. 2: The engine-shaft is at present 10 fms. 3 ft. below the 30.—Middle Lode: In the 30 east the lode is 1 ft. wide, yielding good stones of black and grey copper ore. In the same level west the lode is small, but producing some good black copper ore. In the 20 east the lode is 15 in. wide, spotted with black and grey copper ore. In the same level west the lode is split into branches, producing black and yellow copper ore, and apparently coming together. In the 10 east the lode is 20 in. wide, composed of iron and gossan, producing a little grey copper ore, and impregnated with green carbonate of copper. In the same level west the lode is not compact, but produces some good ore.—West Basset Lode: King's shaft is now 5 fms. below the 30 on a very kindly lode; ground much harder, with patches of elvan on the south side. In the 30 west, now 19 fms. from the shaft, the lode is 14 in. wide, composed of quartz and gossan, green throughout; the ground apparently is becoming a little harder by the side of the lode. We calculate on getting under the commencement of the ore ground standing in the bottom of the 20 in about a fortnight. In the 20 west the lode is 14 in. wide, of soft prian, and looks likely to increase in size. In the deep adit level west the lode is about 1 ft. wide, composed of soft quartz and prian of a very favourable appearance.

SOUTH CRENVER.—Edward Chegwin, Sept. 6: In the adit end, driving east of cross-cut, on the north lode, the lode is 6 inches wide, producing stones of mundic and spots of ore, and the ground a little improved.

SOUTH DARREN.—J. Boundy, Sept. 4: The lode in the 60 west is 3 ft. wide, and worth 16l. per fathom—a very promising lode. The lode in the 50 west is 2½ ft. wide, worth 18l. per fathom, and looking promising for a speedy improvement. Since last report the lode in the 40 west has improved; it is now 2 ft. wide, containing a good mixture of lead and copper, and, judging from the indications presented at this point, a further improvement is expected soon. No lode has been taken down in the 30 or 20 west since last report. All other places throughout the mine are much the same as they have been for some time past.

SOUTH DOLCOATH.—Wm. Roberts, Sept. 5: The following tutwork bargains were set on Friday, Sept. 1:—The 56 to drive east, on the caunter lode, by six men, at 8l. per fathom; the lode is 1½ ft. wide, producing 1½ ton of ore per fm. The 46 east is suspended whilst the men have to drive north to hole to a winze sunk on another part of the lode; driving by six men, at 10l. 10s. per fathom. A plat to cut in the 56, by two men, at 6l. The 46 to drive south by two men, at 3l., and the 24 cross-cut north by two men, at 2l. 15s. per fm.

SOUTH EXMOUTH.—J. P. Nicholls, G. Maunder, Sept. 6: The lode in the 90 cross-cut has been driven through about 30 ft. without, as yet, reaching the west wall; the character of the lode is changed from white iron and barytes to quartz, which change we consider favourable. The lode in the winze in the bottom of the 75 is without alteration since last reported. The driving of the 75 north has been resumed; the lode in this end is 3 ft. wide, of a promising character, and is yielding occasional strong stones of lead. In the 60 north a short cross-cut has been put out east, and the main part of the lode intersected, which is full 8 ft. wide, chiefly quartz and barytes. The cross-cut east, from the 45 south, is being driven through a channel of minerarised ground, but it has not as yet intersected anything of importance.

SOUTH HERODSFOOT.—R. Goldsworthy, Sept. 6: The cross-cuts have been extended during the past month 1 fm. 2 ft. 6 in. east and 3 fms. 5 ft. west. The ground in the end is improved, and is re-set at 8l. 10s. per fm. The eastern cross-cut is letting out a little water, re-set at 7l. per fm.

SOUTH LOVELL.—W. Chappell, Sept. 7: The shaftmen for the last three days have been engaged securing the north side of engine-shaft in the adit level, preparatory to holeing the shallow adit to the engine-shaft, so as to let down the whole of the surface water, and thoroughly ventilate the engine-shaft; this being now completed, the men commenced this morning (Thursday) to drive both east and west in the 12, which is the bottom of the shaft. On Friday, while I was underground, we cut into a lode east end of shaft, on our footwall, and from sample taken the lode is worth 25l. per fm.; set to drive by six men, at 8l. per fm.; we propose, as soon as we have driven 6 feet, to take down the whole of the lode, so as to ascertain the exact size, and according to present appearance the lode will increase in size and value. The lode in the 12 west is 2 feet wide, producing some rich stones of tin, with indications of a speedy improvement; set to drive to four men, at 6l. 10s. per fm. In the course of three weeks from this time we shall commence to sink the engine-shaft under the 12, where the lode is 2 feet wide, and worth 12l. per fathom. We are driving both east and west on the lode discovered in the cross-cut west of engine-shaft; driving west, the lode is 1 foot wide, worth 7l. per fm.; set to drive at 15s. per fm.; the lode in the east end is 9 in. wide, worth 5l. per fm.; driving at 15s. per fm. Our present prospects are very cheering.

ST. DAY UNITED.—Joseph Cock, John Gilbert, William Boundy, Sept. 2: Oppie's engine-shaft, sinking below the 194, is producing some good stones of tin, but not to value. In the 194, east of shaft, the lode is worth 35l. per fathom. In the 194, west of shaft, the lode is 4 ft. wide, worth 12l. per fathom. In the winze sinking below the 184, east of shaft, the lode is split in branches, and very poor. In the 174, east of shaft, the lode is 3 ft. wide, worth 8l. per fathom. In the winze sinking below this level the lode is 2 ft. wide, producing a little tin, but not sufficient to value.—Billing's Shaft: In the 184, west of shaft, the lode is 2 ft. wide—poor. In the 174, west of shaft, the lode is 1½ ft. wide, saving work for stamps. The winze sinking below this level is worth 5l. per fathom. In the winze sinking below the 164 the lode is 3 ft. wide, worth 10l. per fathom. In the 154, west of shaft, the lode is 2 ft. wide, worth 8l. per fathom. The winze sinking below the 140 is unproductive.—Trussall's Shaft: In the 134, west of shaft, the lode is 5 ft. wide, worth 12l. per fathom. In the 124, west of shaft, the lode is 4 ft. wide, worth 8l. per fathom. In the 114, west of shaft, the lode is 4 ft. wide, worth 10l. per fathom.—Trevivian's Shaft: The 124, west of shaft, on the copper lode, is producing stones of copper ore. In the 114, east of shaft, on the tin lode, the lode is 1½ ft. wide, worth 6l. per fathom. There is no change in the 174 cross-cut, south of Oppie's shaft, nor in the 70 cross-cut, south of Daw's.—Richards's Shaft: In the 158, west of shaft, the lode is 3 ft. wide—poor. In the 140, west of shaft, the lode is poor. —East Wheal Maid: In the 20, west of Williams's shaft, the lode is reduced in size and value, now 1 ft. wide, producing stones of ore. Our progress in sinking the new shaft is rather slow, the ground being hard.

ST. JUST UNITED.—R. Pryor, W. R. Rutter, Sept. 2: Saveall's Lode: The engine-shaft to sink below the 62, by six men, at 11l. per fathom; the lode is 4 feet wide, and worth 10l. per fathom. This shaft has already been sunk 8 fathoms 2 feet below the 62, during which the lode has increased in width, and greatly improved in character, and we believe it will be found to be very valuable at deeper levels. The 20 to drive east of engine-shaft, by two men, at 6l. per fathom; the lode is 2 feet wide, and tinny throughout. In about 10 fathoms further driving this end will intersect the Owl lode, at which point a good discovery is expected.—North Lode: The north shaft to sink below the 86, by six men, at 9l. per fathom; the lode is 3 feet wide, and worth 6l. per fathom. This lode has also become larger, and the rock more compact, than we ever before saw it, which is highly favourable for the production of more tin. The 86 to drive east, by two men, at 3l. per fathom; the lode is worth 4l. per fathom. The 86 to drive west, by two men, at 2l. 15s. per fathom; the lode is 1 foot wide, and producing a little tin. The 74 to drive east, by two men, at 7l. per fathom; the lode is 3 feet wide, and worth 5l. per fathom. A winze to sink below the 74, west of shaft, by two men, at 3l.; the lode is 1½ foot wide, and worth 4l. per fathom; the object of this winze is to ventilate and open up tribute ground.—Buck Lode: The 62 to drive east, by two men, at 2l. 10s. per fathom; the lode is worth 4l. per fathom. The winze to sink below the 40, by four men, at 7l. 10s. per fathom; the lode is worth 5l. per fathom; the communication of this winze with the 62 will enable us to set a great extent of tribute ground.—Owl Lode: The 50 to drive north of shaft, by two men, at 3l. per fathom; the lode at present not of much value. The 10 to drive north of shaft, by two men, at 4l. per fm.; the lode is worth 3l. per fm. The cross-cut to drive south, towards the Little Bounds, by two men, at 4l. 15s. per fathom, where we are expecting to cut the lode daily. The great improvement taking place on Saveall's and the north lodes, as deeper sections of the mine become opened out, is most encouraging, and we intend to go on sinking as rapidly as practicable, and fully believe it will result in the discovery of a rich mine.

TEES HEAD AND CROSSGILL HEAD.—J. Peart, Sept. 2: Since we cut the vein we have driven the level 6 fms. 3 ft., and in the last 3 yards it is making a good appearance. This week we have got some very good pieces of lead ore every day.

TOLCARNE.—Sept. 6: Field's Lode: The lode in Field's shaft, sinking below the 60, is 2 ft. long, consisting chiefly of gossan, spar, and stones of ore. In the 60 east, the lode is 1½ ft. wide, composed of spar, fluor-spar, and stones of ore, but at present of no value. The ground in the 60 fm. level cross-cut north is rather stiff for driving. In the 50 east the lode is 15 inches wide, of soft spar and gossan—at present unproductive. The lode in the 40, east of the shaft, is also 15 in. big, composed of gossan and spar. In the 30 east the lode is 1½ foot wide, consisting of soft spar and gossan. The lode in the winze sinking below the 30 is also 1½ ft. wide, composed of soft spar and gossan, with a little black ore, but not enough to value. In the rise over back of the 20, east of the shaft, the lode is 1 foot wide, consisting of gossan and spar. The lode in the 10 east is 14 in. big, composed of gossan and spar. In the adit level, east of the shaft, the lode is 1 foot wide, consisting chiefly of soft spar—unproductive. The ground in the adit cross-cuts, north and south of Field's shaft, is moderately easy for driving.—New North Lode: The lode in the 50 east is small and unproductive. In the 50 west the lode is split into two branches, together about 1½ foot wide, consisting of spar, peach, and a little black ore. The lode in the rise over the back of the 50 east is 1 foot wide, yielding ½ ton of ore per fathom. In the winze sinking below the 40, west of the shaft, the lode is 15 in. big, consisting of peach, soft spar, and a little ore, but not enough to value. The lode in the 40, east of the shaft, is 18 in. wide, consisting of spar, soft spar, and stones of ore, but of no value at present.

TOLVADDEN.—F. Gundry, Sept. 7: The 103 east has been driven since last reported on 5 feet; the lode is composed of spar and mundic, with a leader on the south part 1 ft. wide, yielding yellow ore, with every appearance of improving. No. 1 winze has been sunk 2½ ft. since last reported on; this winze is 5 fms. east of the 103 end. Here we have a course of yellow ore yielding 4 tons to the fathom. There is no change in any other part of the mine to speak of.

TRENCROM.—W. Arthur, H. Woolcock, Sept. 7: The lode in the 110, east of Hollow's, is 15 in. wide, worth 4l. per fm. The lode in the 100, east of Hollow's, is 12 in. wide, worth 2l. per fm. The lode in the 90, east of Hollow's, is 15 in. wide, worth 7l. per fm. The lode in the rise above the 80, east of Hollow's, is 10 in. wide, saving work for tin. The lode in the 70, east of Hollow's, is 12 in. wide, worth 5l. per fm. The lode in the 60, east of Hollow's, is 14 in. wide, worth 3l. per fm. The lode in the 50, east of Hollow's, is 12 in. wide, producing a little tin.

TREVENEN AND TREMENHEERE UNITED.—J. Medlen, C. George, Sept. 6 The lode in Trevenen shaft, sinking below the 172, is 3 feet wide, and of a beautiful composition for yielding tin, but poor. All being well, this shaft will reach the 182 in a week from this time. We are glad to say there is a slight improvement in the 172 end, east of this shaft; it yields saving work. We will give more particulars of this end next report. This level, going west, yields a little tin, but scarcely enough to value; this end is suspended. The 172, east of new sump-shaft, yields a little tin, but scarcely enough to value; this is also suspended. There is about 7 fathoms of ground between these two ends which must be left for a dam to keep back the western water from flowing into Trevenen shaft when the engine stops. No. 1 stope, in back of the 172, east of Trevenen shaft, is worth 5l. per fathom; No. 2, 3l.; No. 3, 4l.; and No. 4, 3l. per fathom. The stope in this level, east of new sump shaft, is worth 3l. per fm. No change in the cross-cut or tribute department to call for remark.

VIGRA AND CLOGAU (Gold).—J. Remfrey, Sept. 7: The dry weather during the week has allowed of continuous sinking at the Nos. 1 and 2 sinks at St. David's No. 2 mine. There is no decided alteration in either of the sinks during the week; in each of them the lode is large and strong. We have stamped about 50 tons of the mineral broken through and through at No. 1 sink, and it has yielded at the rate of nearly 20s. per ton for the whole mass of the lode; the indications of a rich mine at this point are very strong. At No. 2 sink all the stuff broken remains unstamped, as we cannot get it away until the railway is ready. The cross-cut adit is progressing well towards the No. 2 sink. At No. 1 mine we have been greatly hindered by the water in the bottom, which has become quicker than at any previous time. The stopes and other workings are as usual. We cannot get away the stuff from the upper adit until the railway is completed; indeed, the cost of carriage by horse power is so heavy that it is not desirable to attempt the removal of the large quantity of mineral broken at St. David's No. 1, St. David's No. 2, and the old Clogau, until we have proper facilities for its transport to the stamps. The railways to connect the mines to the stamps are being pushed on, and the harvesting operations in this neighbourhood being nearly over we shall be able to put on a large body of men next week. Gold received for month of August, 23 ozs. 18 dwts. 7 grs.

WALKHAM AND POLDICE.—J. Lean, Sept. 2: In the 50 north we are making good progress in driving, the ground being still favourable. We have not taken down any of the branch since my last report. The stopes in back of the 38 produce fair saving work for copper ore, but on extending upwards the leader part of the lode is becoming smaller; this is as I expected. In the winze sinking in the 26 the ground is favourable. We have a branch 6 in. wide, producing occasionally rich prills of copper ore.

WELSH (Gold).—William Vincent, Sept. 7: At Dean's workings the silver-lead lode is looking as well as last week; it is about 4 feet wide, worth 1 ton of silver-lead ore per fathom. A slide appears to cross the lode a short distance east of the stope, and we are desirous of getting through it to see the appearance of the lode on the other side. We have sent down 30 to 40 tons of the stuff as broken, to be dressed at the stamps. At Cefn Coch the lode still carries blende in the west drivage, upon the south lode, but is rather more disordered than it was last week. We must drive a short distance further before we determine upon rising in the back. In the stope under the 8 the lode has opened out again to 6 feet wide; the breast of the stope is about 15 feet from the point where the gold shoot made down under the ladder-shaft; and as we stope back we shall thoroughly search that ground. At Berthlwyd, No. 2 west stope, the end is still in the cross joints mentioned in the last two weeks' reports; the lode is turning from an east and west bearing to about 20° south-west, which is the bearing at which this lode has always made richest. When we get beyond the cross joints there is good reason to expect a decided alteration for the better. In the sink under the No. 2 level the lode is large and strong, with a great deal of strong sulphur mundic coming in. We are preparing to roast and test a quantity of this mundic, as in the upper part of the lode the same kind of mineral was strongly auriferous. In the end of the No. 1 level beneath, which is just beyond the sink, we have the same kind of ground as in the sink. At the dressing-floors, the shortness of water supply has almost stopped all stamping and wash- during the past month.

WEST BASSET.—William Roberts, September 6: Middle Lode: In the 65 east the lode is 1 ft. wide, chiefly spar, with occasional stones of ore. In the same level west the lode is small, but looks promising to improve. In the winze sinking under the 52 the lode is 1½ ft. wide, producing 1½ ton of ore per fm. The 52 east produces stones of tin and stones of good copper ore. In the 42 east the lode is 1 ft. wide, producing 1 ton of ore per fm.—North Lode: At Thomas's shaft, sinking under the 164, the lode is 3 ft. wide, composed of fluor-spar, peach, and occasiodal stones of ore. In the 164, driving east, the lode is 4 ft. wide, composed of peach, prian, and good stones of yellow ore—a very promising lode. No other alteration to notice since my last.

WEST CONDURROW.—E. Hosking, F. Gilbert, Sept. 7: The following is our setting report:—The 86 to drive east of cross-course, by two men and one boy, at 7l. 10s. per fm.; the lode in the end is 15 in. wide, consisting of spar, flookan, &c., with occasional stones of grey ore. The 36 to drive south on the cross-course, by four men, at 7l. 10s. per fathom; we expect to communicate this point with Bickford's shaft very shortly. Bickford's shaft to sink below the 24, by six men, at 24l. per fm. The deep adit level to drive east of Bickford's shaft, by four men, at 4l. per fm.; the lode in the end is 2 feet wide, of a kindly appearance, and producing stones of tin.

WEST MARIA AND FORTESCUE CONSOLS.—W. Skewis, J. Donnal, Sept. 2: The 50 cross-cut is driven north of Maria engine-shaft 24 fms. 5 ft. 10 in.; the last stent is not yet completed. The 50 to drive east of Maria engine-shaft, on West Maria lode, by two men, at 8l. per fm. The 40 to drive west of Holman's cross-cut, west of Maria engine-shaft, on Capel Tor lode, by four men, at 10l. per fm. The rise in back of the 40, west of Maria engine-shaft, by four men, at 10l. 10s. per fm. The 20 to drive east of Maria engine-shaft, on Capel Tor lode, by four men, at 8l. per fm. The 20 to drive west, on Capel Tor lode, by four men, at 12l. per fm. A stope in the bottom of the 20, east of Maria engine-shaft, on Capel Tor lode, east of Austis's winze, by four men, at 5l. per fm. A winze to sink in bottom of the 12, west of new shaft, on Capel Tor lode, by four men, at 7l. 15s. per fm. The new shaft to sink below the 12, by six men and three labourers, at 20l. per fm.; this shaft would have been sunk for less money had it not been for the water, which is much against the sinking.

WEST NANTY.—Sept. 6: The lode in the deep adit level, going east of engine-shaft, is 7 ft. wide, yielding 1 ton of lead ore per fm. The lode at the drift, east of winze, from old workings, is large, and the part we are driving upon will yield about 10 cwts. of lead ore per fm. The stopes, four in number, above deep adit will yield on an average about 13 cwts. of lead ore per fm. The lode in the 10, below adit, going east of the engine-shaft, is large, and the part we are extending is yielding a little ore; it is likely we must drive this level about 3 fathoms further before we can expect any material change, unless it turns out better than above in the deep adit. The lode in the same level, going west of engine-shaft, we are driving with the footwall, and the part we are extending produces saving work. Our drawing-machine will be ready to commence working to-morrow, we can then cut down the lode to its full width at different points, and prove the value of it. The dressing, &c., is going on regular, and we shall shortly sample 50 tons of ore.

WEST WHEAL JANE.—John Smith, Sept. 7: The lode in the 40, east of the engine-shaft, is 4 feet wide, worth 10l. per fathom. The lode in the 40 west is 5 feet wide, worth 6l. per fathom. The lode in the winze sinking below the 30 is 4 feet wide, worth 6l. per fm. The lode in the 20 west is 5 ft. wide, worth 5l. per fm. Our stopes and tribute pitches are looking quite as well as they have for some time past.

WEST WHEAL VOR.—Joseph Southey, Sept. 6: The ground in both Gundry's engine-shaft, sinking below the 32, and in the 32 cross-cut, driving north, is still favourable, and good progress making. Gutierrez's shaft is sunk 13 fms. below the surface; the ground is a little easier, and is being sunk with greater facility. The fixing of the horizontal rods from Gundry's to Gutierrez's shaft is carried on with the utmost vigour.

WHEAL AGAR.—William Roberts, Sept. 6: In the 110, east of Windstow shaft, no lode has been taken down for the past week. In the 110, west of shaft, the lode is 1 ft. wide, producing good stones of ore. The lode in the 100, east of shaft, is 1½ ft. wide, composed of spar and flookan. In the 90 east the lode is 2½ ft. wide, composed of mundic, blende, and good stones of ore—a very promising lode. The lode in the 80 west is 1½ ft. wide, chiefly flookan and spar. The sinking of the western engine-shaft progresses satisfactorily. In the 100, east of shaft, the lode is 1½ ft. wide, saving work both for tin and copper ore, and is promising for further improvement. In the winze below the 90, east of shaft, the lode is 1½ ft. wide, producing stones of ore. In the 90, east of old whim-shaft, on Dobree's lode, the lode is 2 ft. wide, yielding good stones of ore. In the 130 east the lode is 2 ft. wide, producing saving work for tin. The lode in 120 east is 1 ft. wide, composed of flookan, prian, and stones of good ore.

WHEAL BULLER.—J. Inch, J. Dyer, Sept. 2: Stevens's Shaft: In the 92 fm. level west the lode has not been taken down since last reported.—Hocking's Shaft: In the 80 fm. level east, on the north tin lode, the lode is worth for tin 8l. per fathom. The lode in the 80 fm. level west is worth for tin 10l. per fathom. The lode in the 70 fm. level west is worth for tin 14l. per fathom. The lode in the 70 fm. level east is worth for tin 16l. per fathom. The lode in the winze sinking under this level is worth for tin 16l. per fathom. The lode in the 60 fm. level west is worth for tin 12l. per fathom. The lode in the winze sinking under this level, east of the cross-course, is worth 10l. per fathom for tin. The lode in the 50 fm. level west is worth 8l. per fathom. The lode in the 40 fm. level, east of Hocking's shaft, on Buller lode, is worth for tin 8l. per fathom. The lode in the winze sinking under the 28 fm. level is worth 12l. per fathom. The lode in the 80 fm. level, east of Kistle's shaft, is roducing stones of copper ore; the ground is harder for driving. No alteration in any other bargain in the mine.

WHEAL CREBOR.—J. Gifford, Sept. 5: The shaftmen are now engaged fixing standing-lift from the 95 to the 108, and we hope to have it complete and the water in fork by Monday next. In the 108 east we are driving by the side of the lode; the ground is spare for driving. We have communicated the rise in the 108 west with the winze in the 96, and commenced driving the 108 west by the side of the lode, and intend cutting it through in the beginning part of next month. We commence to rise in the 96 west, against the old mine, on Monday next. In the cross-cut south in the 96 west the ground still favourable for driving. In the 96 east the lode is 2½ ft. wide, worth 2 tons of copper ore per fm. In the 84 east the lode is 3½ ft. wide, of a kindly character, but of no value. In the 48 east the ground is good for driving. In the stope in back of the 96 east the lode is yielding 2 tons of copper ore per fm. The tribute pitches are looking well, and the tributers getting wages.

WHEAL EDWARD.—G. Rowe, Sept. 2: The lode in the 61 west has not been taken down during the past week, consequently there is no change in that point. The tribute department has a little improved.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Sept. 2: The lode in the 120 west is 2½ ft. wide, of quartz and prian, producing stamping work. The lode in the 110, east of new shaft, is small. The lode in the 110 west is 5 ft. wide, producing good work for tin, worth 12l. per fm. Three stopes above this level are worth 10l., 9l., and 8l. per fm. The lode in the 100 east is without any change. The lode in the winze is producing some very rich tin, worth 10l. per fm. Two stopes above the 100 east are worth 10l. and 8l. per fm. The lode in the 100 west is 2½ ft. wide, worth 6l. per fm. The lode in the stope above this level is worth 6l. per fm. The lode in the 90 east is worth 10l. per fm. The stope above this level is worth 10l. per fm. The lode in the 90 west is 3 ft. wide, worth 8l. per fm. The stopes above the 80 are producing about the same quantity of tin as before.

WHEAL GRYLLS.—Edward Rogers, Edmund Rogers, Sept. 7: In the 50 fm. level, we are driving east of the flat-rod shaft, by six men, at 5l. 10s. per fathom; the lode is small and unproductive. The 30 fm. level, east of the pressure-shaft, is suspended, and the men, six in number, put to rise in the back, at 6l. per fathom. The lode in this rise is worth 10l. per fathom. The 20 fm. level is driving east by four men, at 3l. 5s. per fathom; the lode is worth 6l. per fathom. In the bottom of this level there is a winze, sinking by six men, at 2l. per fm., and 5s. in 1l. for tin. The lode in this winze is worth 20l. per fathom. In our tribute department we have twelve men at 5s. in 1l., four men at 5s. 6d., eight men at 6s., two men at 6s. 8d., four men at 8s., two men at 8s. 6d., two men at 9s., six men at 10s., two men at 11s., and nine men at 13s. 4d. in 1l., at a standard of 50l. per ton, the tributers paying all expenses.

WHEAL HARRIETT.—S. Williams, Sept. 2: The lode in the 130 west end, from east cross-cut, is unproductive. The lode in the 115 west end, from east cross-cut, is producing stones of copper ore. The lode in the 115 east end, from west cross-cut, is producing stones of ore. The lode in the stope above the 115 is worth for copper ore 7l. per fathom. The lode in the east end, from the 90 north cross-cut, is worth for copper ore 4l. per fathom.

WHEAL HOPE.—J. Nicholls, Sept. 6: Saturday last being our setting-day, the following bargains were set:—The 75 west to six men, at 3l. 5s. per fm.; the lode is 2 ft. wide, of a promising appearance, containing stones of lead; the stratum is becoming easier for driving in, consequently we are expecting an improvement in the lode. The 65 west to four men, at 3l. per fm.; this end present favourable indications, although poor at present. The 48 east to four men, at 3l. per fm.; lode poor. The 38 east is being cleared and secured by three men, at 1l. per fm; we expect to find some tribute ground in the back of this level. The pitches are looking much the same as for some week's past.

WHEAL IDA.—F. C. Harpur, Aug. 29: Our different operations are being pushed onward as fast as we possibly can. The engine-shaft is now down rather more than 32 fathoms below surface; during this sinking we have passed through a lode underlying south, about 18 inches wide, composed of mundic, quartz, prian, and silver-lead ore—a kindly lode; besides this several branches have been passed through in the course of sinking, producing silver-lead ore. Assays from these different branches I have had made, and find them to produce from 12 to 14 in 20 cwts. for lead, and from 24 to 30 ozs. of silver to the ton of ore. When near the 30 fathom level we met with some branches in the shaft, containing some stones of solid lead ore, thus showing that the ground is more strongly mineralised as we proceed in depth, and the greater probability of something being met with at a deeper point; it is, therefore, proposed that we sink the shaft at once to the 40 before cross-cutting. The ground in the bottom of the shaft is of a very favourable character for the production of lead ore, being a light blue killas or clay-slate; the water is so far easy. Our engine, pitwork, &c., are all in excellent condition.

WHEAL KITTY.—W. Polkinghorne, S. Davey, Sept. 2: In the 82, driving west of Holgate's shaft, the lode much the same as last week, yielding stamping work. Pryor's lode, in the 65, driving west of new shaft, we have no change to notice; lode worth for tin 12l. per fathom. In the 65, driving east of shaft, we have no improvement to report on. In the 54, driving west of the shaft, the lode is 2 feet wide, and worth for tin 10l. per fathom. In the 54, driving east of the shaft, the lode is worth for tin 8l. per fathom. In the 44, driving west of the shaft, the lode is 1½ ft. wide, and worth for tin 8l. per fathom. In the 44, driving east of shaft, the lode is worth for tin 6l. per fm. In the adit level, driving west of the cross-cut, the lode is looking very promising. Nothing new in either of the cross-cuts.

WHEAL MARY ANN.—P. Clymo, J. Harris, J. Stevens, Sept. 7: Clymo's shaftmen having completed casing and dividing the shaft from the 200 to the 210, are now engaged fixing new pitwork. We have commenced driving a cross-cut in the 210, towards the lode. In the 200, north of shaft, the lode is 2 ft. wide, producing stones of lead. In the same level south it is 2½ ft. wide, worth 8l. per fm. In the 190 north it is 2 ft. wide, producing stones of ore. In the same level south it is 2½ ft. wide, worth 7l. per fm. In the 180 north it is 2 ft. wide, worth 4l. per fm. In the same level south it is 2½ ft. wide, worth 8l. per fm. There is no improvement in the 170, north of Pollard's shaft. The stopes and pitches are producing much the same as usual. We sampled on Aug. 31 two parcels of lead ore. No. 1 computed 78 tons, and No. 2 computed 25 tons, will be sold to-day.

WHEAL NORRIS.—J. Andrews, Sept. 2: We are making about the usual progress in sinking Carter's shaft below the 57. The lode in the 57, east of Carter's, has much improved, which is now 8 ft. wide, worth from 8l. to 10l. per fm., and looking promising for further improvement. In the 45 east we are driving by the side of the lode, and no lode has been taken down for the week. The lode in the stope in back of the 45 is 20 in. wide, worth 6l. per fm. No change in the 45, driving east of cross-cut, on new lode, since last reported.

WHEAL SITHNEY AND CARNMEAL.—Wm. Chappell, R. Gluyas, Sept. 7: The flat-rod shaft is down 5 fms. 4 ft. below the 125, where the lode is 4½ ft. wide, consisting of peach, mundic, prian, quartz, and tin, but not sufficient to value. The lode in the 95 west is 18 in. wide, composed of capel, prian, mundic, but at present poor for tin. Bounder shaft, sinking below the 70, is down 17 fms. 4 ft.; lode about 2 ft. wide, at present poor for tin; in sinking this shaft about 7 ft. deeper it will be the same depth as the 95, west of flat-rod shaft, which we intend to communicate for ventilation, and the discharge of the Bounder water to flat-rod shaft, which will greatly relieve our surface rods, and enable us to sink the Bounder shaft to a deeper level.

WHEAL SPARNON.—W. Tregay, E. Chegwin, Sept. 2: Sump: In cutting ground for pitwork in the 60, we find a part of the lode carrying tin, to the value of about 15l. per fathom. We believe there is a large quantity of ground opened ready for stoping at the back of this level, and if so we shall very soon be enabled to commence making important returns. The arrangements of pitwork necessary previous to clearing the level will be accomplished in two or three days next week, when we shall proceed with clearing the bottom level vigorously. On the north lode, in the 20 west, the lode is not yet taken down. On the new lode the lode has not been taken down for the week, it produced when taken down last good stones of copper ore. In the 20 cross-cut there has been nothing of importance intersected for the week. At the old sump we are making good progress putting in skip-road, this will now be pressed on vigorously, in order to take away the stuff as much as possible from going back through the sump-shaft, it being very important that sinking that shaft for another level be proceeded with as early as possible. At Belfry we are proceeding rapidly with clearing the 46 cross-cut south, that being driven further south, we believe, than the 50. The 50 south has been cleared to the end, but the lodes have not been reached by it.

WHEAL TRELAWNY.—Capts. Johns, Trathan, and Pryor, Sept. 4: We have completed the necessary pitwork in Smith's engine-shaft—fixing a plunger-lift, with an additional 20 fms. of main rods, which we are pleased to say are working as well as could be desired. We calculate it will take about a week from this date to put the shaft in right order, after which the sinking will be resumed. In the 196 south the ground is a little easier. In the same level north no particular change has taken place in the lode to notice. In the 182 south, although the lode is not looking quite so well as hitherto reported on, we are opening out good tribute ground. The winze sinking below the 172, in advance of this end, by the side of the lode, we hope to have down to this level by our next setting-day. In the 182, north of Chippendale's shaft, the lode is very much improved, worth from 10l. to 12l. per fathom. The lode in the 162, north of Trelawny's shaft, is full 2 ft. wide, spotted with ore. Looking at our tutwork bargains and tribute pitches, we consider, on the whole, the mine is much the same as for some time past. We shall sample at our usual time about the same quantity.

WHEAL TREMAYNE.—R. Williams, J. Williams, Sept. 6: At the new engine-shaft in the 143 cross-cut, north of the engine lode, east of shaft, towards Allen's branches, there is no change to notice since last reported. In the 133, east of the same shaft,

Allen's branch is worth 4*l.* per fm. The stopes in bottom and back of the 123 east, on Allen's branches, are worth on an average 12*l.* per fm. In the 103 east cross-cut north, in search of more branches, there is nothing cut worthy of notice. In the cross-cut south of the same level, towards Wallis's lode, the ground is much the same as when last reported on. The stopes in back of the same level east, on Allen's branches, are worth on an average 10*l.* per fm. In the 25 cross-cut north, east of new shaft, we have cut the north branch, which is yielding good stones of tin, and looking likely to improve as we advance east on it.

WHEAL TREVENNA.—T. Jennings, Sept. 7: This mine is progressing rapidly and looking well throughout. The lode in the 15 fm. level, east of Highborough shaft, is 3 ft. 6 in. wide, worth 35*l.* per fathom for tin. The stopes in the back and bottom of the level are equal in value. The end west of shaft is still in the old men's workings. The 15 fm. level is the bottom of our workings at present. Our large tin deposit is looking well, and producing splendid work for tin. I have let to three sets of men to work on this deposit at 12s. 6d. in 1*l.*, the standard for the tin to be 50*l.* per ton; the tin is of a good quality, and will fetch the best price. As soon as our additional stamps are erected I shall be able to put on more men on the deposit. I am expecting the additional stamps on the mine daily, when no time time shall be lost in getting them to work. We shall sell our next parcel of tin this week, and if time will permit us to to clear up what we have now on the dressing-floors we shall have quite 4 tons. Our stamps are working well. Mr. G. Henwood has thoroughly inspected our mine this week, when the lode in the 15 fm. level was equal to what it is at the present time.

WHEAL UNITY CONSOLS.—W. H. Reynolds, Sept. 6: The ground at the western shaft is favourable for sinking, and the men are making good progress.

WHEAL UNY.—S. Coade, M. Rogers, Sept. 2: We shall have the skip-road complete in the incline-shaft for drawing to the 120 on Monday next. We have sold this day 10 tons 6 cwts. 0 qr. 9 lbs. of black tin, at 51*l.* 5s. per ton.

Mr. Jehu Hitchins has accepted an engagement to go out to the Banda Oriental, or Uruguay, on a tour of mineral inspection of that republic. Mr. Hitchins is so well known as a sound practical miner, and has had such extensive experience in South America, that we may anticipate he will furnish a highly valuable and instructive report, which we hope to have the opportunity of publishing in the Journal.

Great Wheal Vor.—The lode in Ivey's shaft has greatly improved, and shows every indication of its former richness. This is an important feature in the great prospects of the mine. The other points maintain their productiveness.

Clifford Amalgamated.—These mines have been considered (and justly so) the most important copper mines in Cornwall. The lodes are of immense magnitude and value, and the reserves of ore are very considerable. The recent run of ore ground below the 200 may possibly interfere with the dividends for some three or four months; but as the standard for copper ore indicates an improvement a temporary reduction in the amount of ore returned may not result in so serious a loss as was at first anticipated. The decline in the market value of the shares will enable those who are acquainted with the real merits of these extensive and valuable mines to secure an interest at a moderate price. It should be remembered that there are only 2800 shares.

Frontino and Bolivia (South American) Gold Mining Company.—Upon the expectation that by the mail due at the end of the present month information will be received of the result of the stamping operations at Bolivia, and, probably, a remittance of gold from Frontino, the shares have considerably advanced in value during the past few days, the present price being fully 3¾ (or 2¾ prem.). As already stated, 12 heads of powerful steam-stamps went to work at the Bolivia establishment on July 1, and a further 12 heads on July 20; and as the stuff to be operated upon has been proved to contain an average of from 1½ to 2 ozs. of gold per ton, it is not unreasonable to assume that the forthcoming advices will prove to be of a most important character.

Silver Mining in Mexico.—The El Chico Silver Mining and Reduction Company have received most satisfactory advices from their local director and their agent at the mines. An important discovery has been made near the San Pedro Bomba shaft in the San Juan de Rayas, and a number of samples of the ore have been received in London by the last mail. The box contains 20 specimens of the ores, and Mr. J. R. Rule refers to them as having been broken from the vein in the west end of the shaft at about 50 varas from surface. That the vein is of good ley the assays of the samples sufficiently show. The twelve assays made give respectively to the ton of ore 370 ozs., 179 ozs., 107½ ozs., 107½ ozs., 233 ozs., 119½ ozs., 281½ ozs., 657 ozs., 967½ ozs., 185 ozs., and 531 ozs.: showing the general average to be 57 marcs, or 456 ozs., per monton=340 ozs. per ton. Under date July 27 Mr. J. Rule writes—"I have sent off a box of specimens of the ore we have found and are now working upon near the San Pedro shaft. The vein contains ore of high ley. One sample gave 102 marcs, another 62, another 30, and there was also a sample of 18 marcs, and we shall soon have ores sufficient for a torta from this vicinity. We are about to drive the San Nicanor level east, which will be interesting, as being in new ground, and approaching the junction of two veins, one of which is very wide, composed of kindly spar with ore."

Great Darren (Silver-Lead).—This mine has frequently been before the public, and we are happy to say that the attention it has commanded has not been inappropriately bestowed. We learn from the reports that the bottom level has been passing through good bodies of ore, and is gradually approaching the great workings in the western part of the mine. Many fortunes have been realised from these extensive workings, and when the communications are made from the present operations, so as to drain and ventilate the old mine, they will open up a line of ore ground more than half a mile in length, which will again restore to its ancient productiveness the character of one of the most extensive silver-lead mines of Cardiganshire.

Wheal Ellen United (St. Agnes.)—An influential company has been formed in Manchester and Cornwall to develope these mines; all the preliminary arrangements are made, and the men put to work, the larger portion of the shares being subscribed for in a few days. The prospectus of the company will shortly appear. The sett, as now to be worked, comprises the western part of Old Wheal Ellen, the eastern part of Old Wheal Basset and Old Wheal Music, including the celebrated Narray Pit, from which, though only 60 ft. deep, 60,000*l.* worth of copper was sold in a very short time. The present company have purchased all the buildings, &c., late the counthouse, &c., of Old Wheal Basset. It is well known that during the late working of Wheal Ellen immense quantities of blende (at that time not worth raising) were left standing in the backs above the adit; these are already set on tribute, and about 10 tons raised in a few days; and as soon as the levels can be secured other pitches will be set. Some of the principal proprietors were on the mine a few days since, and were delighted to see a large pile of ore raised in so short a time, 6 tons being then at surface, the produce of less than a week's work by two men only. The quality of the blende may be judged of by the fact that samples taken as the ore is broken have been submitted to buyers of the article, who offer to purchase all that can be raised, and desire it not to be dressed, they preferring to extract what is contained by their own process. The sett is one mile on the course of the east and west lodes, and 300 fms. north and south. Within this area are nine known lodes; numerous shafts have been sunk, but none below the 30; and, but at an improper point, a new engine-shaft had been sunk 25 fms. by the late party, who found out their error when too late. It is proposed to erect an engine of not less than 40 or 50-in. cylinder, so that no difficulty in regard to power will be incurred. The mine has on its northern boundary the great Tywarnhaile, Old and South Towan, East Treskerby, &c., whose lodes are parallel. On the west, Wheal Music and Old Basset, whose lodes constitute some of the Wheal Ellen. On the south are Treskerby, Wheal Rose, North Downs, &c., also parallel lodes. The management is entrusted to Captain John Tonkin, of Chacewater, late of the St. John del Rey and Morro Velho Gold Mines, Brazil. This is a sufficient warranty for the genuineness of the undertaking.

Wheal Trevenna Tin and Copper Mines (St. Neots).—These mines have this week been inspected by Mr. George Henwood, who has minutely reported on the extraordinary deposit of detritus found on the top of the hill, at an altitude of many hundred feet above the sea. This curious deposit consists of granitic, hornblendic, and quartzose boulders, varying in size from 1 ton weight to ½ oz.; they are not very much rounded; they are embedded in a coarse granitic sand, containing tin ore throughout its entire substance, though no tin is contained in the boulders; it is only necessary to quarry the deposit, sift the sand from the boulders, and tram it to the stamps; the quantity thus to be procured is illimitable, the deposit being 30 feet deep to 15 feet, and extending over many acres. Water-power to any extent is close at hand in the sett; 16 heads of stamps are at work now; these in a fortnight will be increased to 30, in three months to 42, and soon after to 80. As at present intended, a parcel of 3 or 4 tons of tin will be sold on Friday, from only a few weeks' work by the six heads; but the Trevenna will soon be pouring in large sales monthly. In addition, they have lately cut a splendid tin lode in the 15, worth at present 45*l.* per ton. This will be a good prize.

The British Slate Company.—It is satisfactory to observe that of the several recently-formed slate quarrying companies one, at least, has been eminently successful. The British Slate Company (the general meeting of which was reported in last week's Journal) is a striking illustration of what may be accomplished by an economic and energetic management. Commencing operations upon a very limited basis not longer since than February, 1864, the directors were enabled in March of the present year to pay a dividend to the shareholders at the rate of 8 per cent. per annum, and at the meeting held last week a further dividend at the rate of 9 per cent. It appears from the report that this company now possesses three large and important quarries, containing slate which extends over more than 3000 acres; and, having recently succeeded in obtaining a lengthened tenure of these extensive properties, the utmost energy is being displayed in their development, with the view of rendering them substantially remunerative. Of the slate companies formed as joint-stock enterprises, several of which have been in existence some years, it would appear that but few have as yet made any return to their shareholders. But the demand for slates is still greatly in excess of the supply, and the new markets which are being continually opened up for this product, together with the numerous and increased uses to which it is being daily applied, render it difficult to determine when the supply will be in any way adequate to the demand. It cannot be too often urged upon the public that good and *bona fide* slate quarrying is far less speculative than many other enterprises.

# The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—London, Sept. 8, 1865.

| COPPER. | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| Best selected....p. ton | 89 | 0 | 0- | — | | |
| Tough cake & tile " | 86 | 0 | 0- | — | | |
| Burra Burra .... " | 89 | 0 | 0- | — | | |
| Copper wire .....p. lb. | 0 | 11½ | - | — | | |
| ditto tubes ..... " | 0 | 12¼ | - | — | | |
| Sheathing & bolts p. ton | 91 | 0 | 0- | — | | |
| Bottoms ..... " | 96 | 0 | 0- | — | | |
| Old (Exchange).... " | 77 | 0 | 0- | — | | |
| IRON. | | Per Ton. | | | | |
| Bars Welsh, in London.. | 7 | 15 | 0- | 8 | 0 | 0 |
| Ditto, to arrive ..... | 7 | 15 | 0- | — | | |
| Nail rods ..... | 8 | 10 | 0- | — | | |
| " Stafford. in London | 8 | 15 | 0- | 9 | 15 | 0 |
| Bars ditto | 8 | 15 | 0- | 11 | 0 | 0 |
| Hoops ditto | 9 | 17 | 6- | 10 | 10 | 0 |
| Sheets, single ..... | 10 | 10 | 0- | 11 | 0 | 0 |
| Pig No. 1, in Wales.... | 4 | 10 | 0- | 5 | 10 | 0 |
| Refined metal, ditto.... | 4 | 0 | 0- | 5 | 0 | 0 |
| Bars, common, ditto.... | 7 | 0 | 0- | 7 | 5 | 0 |
| Do., merch., Tyne or Tees | 7 | 10 | 0- | — | | |
| Ditto, railway, in Wales | 7 | 0 | 0- | 7 | 5 | 0 |
| Ditto Swed. in London. | 11 | 0 | 0- | 11 | 10 | 0 |
| To arrive ..... | 11 | 10 | 0- | — | | |
| Pig, No. 1, in Clyde.... | 2 | 17 | 6- | 3 | 3 | 0 |
| Ditto, f.o.b. Tyne or Tees | 2 | 9 | 6- | — | | |
| Ditto, Nos. 3, 4, f.o.b. do. | 2 | 6 | 6- | 2 | 5 | 6 |
| Railway chairs..... | 5 | 10 | 0- | 5 | 15 | 0 |
| " spikes..... | 11 | 0 | 0- | 12 | 0 | 0 |
| LEAD. | | | | | | |
| English Pig, ordny. soft | 19 | 5 | 0- | — | | |
| Ditto (WB) ..... | 20 | 5 | 0- | 20 | 10 | 0 |
| Ditto sheet ..... | 20 | 0 | 0- | 20 | 5 | 0 |
| Ditto red lead ..... | 22 | 0 | 0- | 23 | 0 | 0 |
| Ditto white ..... | 26 | 0 | 0- | 27 | 0 | 0 |
| Ditto patent shot..... | 22 | 10 | 0- | — | | |
| Spanish ..... | 18 | 10 | 0- | — | | |

| BRASS. | Per. lb. |
|---|---|
| Sheets ..... | 8¼d.-9d. |
| Wire ..... | 8¾d.- — |
| Tubes ..... | 9½d.- — |

| STEEL. | | Per Ton. | | | | |
|---|---|---|---|---|---|---|
| Swedish, in kegs (rolled) | 13 | 0 | 0- | 14 | 0 | 0 |
| " (hammered). | 15 | 0 | 0- | 16 | 0 | 0 |
| Ditto in faggots..... | 16 | 0 | 0- | 16 | 10 | 0 |
| English, Spring ..... | 18 | 0 | 0- | 23 | 0 | 0 |
| QUICKSILVER (per bottle). | 8 | 0 | 0 | nom. | | |
| SPELTER. | | Per Ton. | | | | |
| Foreign ..... | 21 | 7 | 6- | — | | |
| To arrive ..... | 21 | 10 | 0- | — | | |
| ZINC. | | | | | | |
| In sheets ..... | 28 | 0 | 0- | — | | |
| TIN. | | | | | | |
| English, blocks ..... | 94 | 0 | 0- | — | | |
| Ditto, Bars (in barrels).. | 95 | 0 | 0- | — | | |
| Ditto, Refined..... | 97 | 0 | 0- | — | | |
| Banca ..... | 90 | 0 | 0-91 | 0 | 0 | |
| Straits ..... | 88 | 10 | 0- | — | | |
| TIN-PLATES.* | | | | | | |
| IC Charcoal, 1st qua. p. bx. | 1 | 10 | 0- | — | | |
| IX Ditto 1st quality " | 1 | 16 | 0- | — | | |
| IC Ditto 2d quality " | 1 | 7 | 0- | — | | |
| IX Ditto 2d quality " | 1 | 13 | 0- | — | | |
| IC Coke ..... " | 1 | 4 | 0- | 1 | 5 | 0 |
| IX Ditto..... " | 1 | 10 | 0- | 1 | 11 | 0 |
| Canada plates ....p. ton | 13 | 10 | 0- | — | | |

In London; 20s. less at the works.

| | |
|---|---|
| Yellow Metal Sheathing...p. lb. | 8d.-8½d. |
| Sheets.....p. lb. | 7¾d-8½d. |
| Indian Charcoal Pigs in London ..... | 7 0 0- 7 10 0 |

* At the works, 1s. to 1s. 6d. per box less.

Remarks.—We have certainly not yet arrived at the time when we can congratulate our readers upon the return of the Metal Trade to the activity and vigour which formerly characterised it, nevertheless, we think that by slow and sure advances we are again gradually coming to the desired consummation; and it is satisfactory to see that this point is being attained, not by spasmodic efforts, which might indeed produce much activity for a time, but would most certainly speedily cease, but by steady and well-secured steps, which are calculated to assure us that when again attained the prosperity of the metal trade will be of a lasting and enduring character. Prices of metals generally still keep low, and, in fact, in some cases are lower than they have been for some years past, still there is every reason to believe that as soon as a greater degree of activity is manifested in the trade prices will speedily move upward—and, indeed, in some instances this is already taking place. All eyes are anxiously turned to America, and are eager to see the first tokens of returning commercial revival. The intelligence from some parts of India is still more favourable regarding metals, and we wait with much eagerness for this to become general.

Copper.—Transactions in this metal have not been by any means numerous, nevertheless makers are not disposed to sell under the present fixed quotations, and are evidently looking for better prices in the event of greater activity arising in the market.

Iron.—In Staffordshire the works are generally well supplied with orders, and some are full for a month in advance, though in some cases there is a want of orders for ship-plates and nail-sheets. In Welsh the iron trade shows more vitality than during the last week, owing principally to the improved feeling at the Staffordshire meetings, and the fact that there is no scarcity of orders in the market. For railway iron there is a good demand. Puddled bars maintain previous rates, and pigs are stiffening in price. The unfavourable financial news from New York made makers cautious in their American engagements at the commencement of the week, but the subsequent advices have restored confidence, and the increased trade which had commenced is going on steadily. For the week ending Aug. 31 the exports were 1150 tons. In Swedish iron prices still continue less firm, and the market has a downward tendency. In Scotch pig-iron, owing to favourable shipments, and the improving aspect of the money market, the market has continued to improve; at the commencement of the week there was some excitement, and considerable business was done at 56s. to 56s. 4½d. cash; the market still continued active, and the price advanced to 56s. 6d. cash, at which it remained, with extensive transactions in warrants. The last advices from Glasgow announce a still further advance to 57s. 3d. cash.

Lead remains inactive, and no alteration has occurred in prices.

Tin.—The market for Straits remains steady at 88*l.* 10s. cash, and 90*l.* for arrival, but the demand is only moderate. The stock in London on Sept. 1 was 3410 tons, against 3499 tons same time last year; and the quantity afloat for Europe is 1413 tons, against 1165 tons the same time last year.

Spelter has again declined in price during the week. At the commencement business was done at 21*l.* 12s. 6d. on the spot, but declined to 21*l.* 10s., and afterwards to 21*l.* 7s. 6d., which may now be quoted as the price for parcels on the spot. The stock in the port of London on Sept. 1 was 7389 tons, being a decrease of 114 tons during the month.

Tin-Plates.—The demand is now very active, principally for the United States, and sales have been effected at an advance of 1s. per box on the prices of a fortnight ago. Many of the makers are keeping their works on full time, expecting prices still further to advance.

Steel and Quicksilver without change

## THE LIVERPOOL METAL MARKET—Sept. 7.

Pig-Iron.—A considerable improvement has taken place in Scotch pigs, and prices have crept up during the current and past week to 56s. 3d. cash. No speculative feeling, however, has been manifested. Advices from Cumberland show a better feeling in hematites, but no advance has taken place in prices. A fair demand for hematite ores; first-class quoted at 12s. in Cumberland.

Manufactured Iron.—We are glad to be able at last to report considerable improvement in Staffordshire iron. The demand is very much greater for the States and India than it has been for some months past. North Staffordshire is very well off for orders, and the makers in that district are asking as much as 5s. advance on recent prices; indeed, with the exception of plates, the demand for which continues very limited, there is a good market for every description of iron. We may, perhaps, also except nail rods, the export demand for which is small. Welsh bars are in excellent request, and leading makers will not book the best specification at less than 7*l.*, f.o.b. South Wales. Rails are in good demand, at stiff prices—7*l.* 2s. 6d. to 7*l.* 7s. 6d., f.o.b. South Wales.

Tin-Plates continue to improve steadily, both in price and demand. Some large shipments have been made recently to the States, especially charcoals. Makers have no stocks, and are full of orders for some time to come. Charcoals cannot be bought for less than 28s. to 29s., and cokes 23s. to 24s. 6d., f.o.b. Liverpool.

Copper is considerably firmer, with much better enquiries for both raw and manufactured. Advices from the West Coast are in favour of importers here. Smelters are firm, at present list, and we may expect a move upwards if the present demand continues.

Tin remains without much change. English steady, at 2*l.* under list.

Lead remains steady, but business very limited.

Spelter dull; prices declining. Zinc firmer.

Imports for the Month of August, 1865.

5343 tons, 7772 quintals, 6030 cantars of sulphur ore; 1167 tons manganesed ore; 120 tons shot; 100 cases, 60 boxes, steel; 86 cast-steel tyres; 21 cases ironware; 42 packages old metal; 1 box old copper; 4594 bars iron, 6891 ditto, 123 tons pig-iron, from St. John's; 330 pigs of lead; 134 boxes lead ore; 1038 bars tin; 60 bars lead; 235 bags, 27 tons, silver ore; 12,712 bars, 6 pans, 7340 lbs. sheet, copper; 41,191 ingots refined, 1588 bars raw copper; 9000 quintals copper mineral; 2833 bags copper Barilla; 5802 quintals sulphate copper ore; 460 tons, 1006 bags, copper ore; 20,271 quintals copper regulus; 55 cases zinc and brasswork; 65 bars zinc; 1 keg nails.

Exports for the Month of August, 1865.

8955 tons bar; 1340 rod; 2284 hoop; 1962 sheet; 3470 pig; 2778 railway; 1596 plate; 6¼ tubes; 41 galvanised sheets; 15 scroll iron; 15 rails; 2074 band iron; 136¾ knees; 38¼ tyres; 20¼ band iron; 74¼ tons puddled-plates. Tin-plates, 73,129 boxes to August 30.

Coal Market.—The fresh arrivals this week only reached 112 ships of all kinds. House coals have been in active demand, and close to-day at an advance of 6d. per ton upon last week's currency. Hartley's have also been in request at the same improvement in prices. Hetton Wallsend, 20s. 6d.; Haswell Wallsend, 20s. 6d.; South Hetton Wallsend, 20s. 6d.; East Hartlepool Wallsend, 20s.; Eden Main, 18s. 9d.; Russell's Hetton Wallsend, 18s. 9d.; Gosforth Wallsend, 18s. 3d.; Hetton Lyons Wallsend, 18s. 3d.; South Hartlepool Wallsend, 19s.; Kepier Grange Wallsend, 18s. 9d.: 3 cargoes unsold; 30 ships at sea.

Neither the favourable change in the weather, nor the abundance of money, seem to have had much influence on the Mining Share Market at present. Some shares, since our last, have had a good rise; some have fallen; and, on the whole, a moderate business has been transacted. Mines most in demand have been East Basset, Wheal Buller, Great Busy, North Shepherds, South Herodsfoot, Great Wheal Vor, Hallenbeagle, East Lovell, Great Laxey, South Condurrow, Rosewarne United, Wheal Basset, &c. Wheal Buller shares have advanced to 31, leaving off 27½ to 32½; the 80 has now improved to 10*l.* per fathom; no call will be required at the next meeting, and the mine altogether is looking well. East Basset shares rose to 26, and leave off 24½ to 25½; we hear there is a good improvement in the bottom level, but have nothing official. South Frances, 12½ to 17½; at the meeting the accounts showed a loss on two months' working of 286*l.* 17s. 3d., and a balance in hand of 903*l.* 6s. 6d.; there are 16 tribute pitches, working on copper and tin; and in reviewing the mine generally, the agents state they regret the present points of operation are so poor, but it will require no great length of time to be in a position to drive four levels in new ground, to the west of Pascoe's shaft—the 154, 144, 134, and 124—the two latter to the west of the cross-course, where the lode is expected to be found more productive. East Caradon, 12 to 13; East Carn Brea, 5¾ to 6; East Lovell, 12¾ to 13½; East Pool, 410 to 430; East Rosewarne, 2½ to 2⅝; East Russell, 2⅞ to 3½; East Wheal Grenville, 2⅜ to 2⅝; Frank Mills, 6⅝ to 6¾; Great Wheal Vor shares leave off 35 to 36; Hallenbeagle, 2¼ to 2½; Herodsfoot, 38 to 40. Hingston Down shares are not so firm, at 3⅞ to 4½; the 130 has been extended east 8 fms.; the lode, on the average, is worth 50*l.* per fm.; the end, 75*l.* per fm., and driving at 6*l.* per fm.; the 130 west is extended 2½ fms., worth 50*l.* to 70*l.* per fm., and also driving at 6*l.* per fm.; the costs for July and August are estimated at 1800*l.*, and the ore sampled is expected to realise 2400*l.* Lady Bertha, 8s. to 10s.

Prince of Wales, 2s. 6d. to 5s.; the cross-cut south of Watson's shaft has been driven 2 fms. (out of 6 fms.) towards the lode, and the end letting out more water. Wheal Crebor, 30s. to 32s. 6d.; on Monday next a rise will be commenced in the 96, to unwater the old mine; this has been a great object with the company for more than two years, and is now on the point of being accomplished. The old mine yielded 150,000*l.* worth of ore when copper was at a low price, and good quantities left in the backs, which it is expected will be taken away at a profit when unwatered. Other points continue without alteration, and the tribute pitches looking well. North Basset, 17s. 6d. to 20s.; North Shepherds, 3½ to 4; North Treskerby, 1⅞ to 2½; Providence Mines, 31 to 33; Rosewarne United, 24s. to 26s.; Tincroft, 17½ to 18; West Chiverton, 70 to 75; West Caradon, 8½ to 9½; Wheal Basset, 75 to 80; Wheal Grenville, 1⅞ to 2½; Great Laxey, 21½ to 22½. Great North Laxey, 35s. to 40s.; the lode in the 73 south is 3 ft. wide, of a very promising appearance, and worth ½ ton of lead per fm. Some good ore is being broken in the roof of the 60. South Callington, 1¾ to 2¼. Wheal Chiverton, 8 to 8½; the lode at Cookney's shaft is daily improving, with good stones of lead ore.

South Condurrow, 3⅜ to 3¾; the lode in the 20 and 30 fm. levels, on West Basset lode, has improved; the 30 fm. level end is within 10 fms. of the course of ore gone down below the 20. Gawton Copper, 35s. to 37s. 6d.; the lode in the 50 will produce 5 tons of rich ore per fathom. Wheal Uny, 2½ to 2¾; the lode in the engine-shaft is worth 30*l.* per fm. At Great Wheal Busy, the tribute operations are valued at 245*l.* per fm. in the aggregate, and the eastern ends opening ground equal to 70 tons of tin per month. Penhalls, 4½ to 5½; the Pink lode in the 40 is worth 20*l.* per fm.; the lode in the winze below the 50, 40*l.* per fm.; the lode in the 60, east and west, 25*l.* per fm. Clifford Amalgamated have declined to 17½ to 18½. Rosewarne Consols, 15s. to 20s.; the ground in the 80 east has greatly improved, and there are spots of ore in the lode; the 70 east is worth 5*l.* per fm.; the stope in back, 12*l.* per fm.

On the Stock Exchange a fair demand for Mining Shares has prevailed during the week. The following quotations were officially recorded in British Mining Shares:—East Basset, 18, 23, 24½, 24¾, 25; Tincroft, 18; Clifford, 18½, 17¾; Great Laxey, 21½; South Condurrow, 3¾; East Lovell, 12¾; East Caradon, 12; Great Wheal Vor, 35¾.—In Colonial Mining Shares the prices were:—Cape, 10⅞, 11; Yudanamutana, 1¼; Port Phillip, 1⅛, 1¼.—In Foreign Mining Shares the prices were:—East del Rey, 1⅛, 1, 1¼, 1⅛, 1¼; Frontino and Bolivia, 3½, 3⅝, 3½, 3¾; Pontigibaud, 8, 8½; St. John del Rey, 42; Val Antigoria, ⅞, ¾; Montes Aureos, ⅝; Panulcillo, 3⅞, 4; United Mexican, 3, 3½; Washoe (4*l.* paid), 7½.

Irish Mine Share Market.—In mining shares a very large amount of business has been done this week, especially in those of the Mining Company of Ireland, which were made the subject of extraordinary fluctuations, by which the habitual speculators, or "gamblers," as the Chairman of that company more correctly than politely designated them, must have realised some very large differences, for both sides of their accounts. Contrary to what ought to have been expected as the result of the laudable step taken by the board of direction in giving to their shareholders, and through them to the public at large, at a meeting specially called for that purpose, a very clear description of the improved appearances of the principal lodes at Knockmahon Mines, the shares, after a momentary inclination to recovery, continued in their downward course with, so to say, renewed impetus, marking falls amounting on some days to 1*l.* up to 1*l.* 10s. per share, until they were done (on Saturday last) at 16*l.*, 15*l.* 15s., and 15*l.* 10s. for cash, and at 16*l.* for January, showing a total decline on our last quotation of about 3*l.* per share for cash, and of 2*l.* 15s. for January account. On Monday, however, a reaction set in, and an advance on last Saturday's lowest price was realised, unprecedented in magnitude since the mania of scarcely six months ago, when the price was forced up to 34*l.* 10s., with little and yet much better justification than the recent rapid depreciation to 15*l.* 10s.! The opening quotation was 18*l.* for January account, to which attention was chiefly directed, but quickly rose to 19*l.* and 19*l.* 10s.,, amounting to an advance for the day of fully 2*l.* 10s., and from the lowest price of last week, of 3*l.* 10s. per share. For cash transactions there was also a strong demand, at a proportionate rise. On Tuesday, the upward movement was further supported to the extent of 17s. 6d. per share on the previous day's highest price, when sellers for realisation of profits pressed for business, which resulted in the loss of 10s. per share on the then highest figure, and in final dealings for January account at about 20*l.* to 20*l.* 5s. Since that the relapse has continued, with a considerable falling off in the number and extent of transactions, the present average price being about 18*l.* for cash and deferred account. Wicklow Coppers have been well supported at a rise of 5s., 14*l.* per share having been the lowest, and 14*l.* 5s. the highest quotation, closing with buyers at 13*l.* 15s., last week's advanced rate, and sellers at 14*l.* 2s. 6d. Connorrees have advanced from 20s. 3d. to 21s. 6d., and remain firm. For Carysforts offers were made at a slight reduction, to which holders declined to submit. General Mining Company for Ireland shares were on sale at 3*l.* per share, but 2*l.* 5s. was the best offer.

Relative to the Feock Lead Smelting Works (Messrs. R. Michell and Son, Truro), which, as has already been stated, are about to be purchased by an influential joint-stock company, it may be mentioned that the eminent legal firm, Messrs. Smith and Roberts, of Truro, have expressed their willingness to become the solicitors of the company.

The Norton Iron Company, to which reference has been made upon previous occasions, has succeeded in making an excellent arrangement with Mr. W. Barrett, for the management of the works (under the supervision of the directors), at a small fixed salary, and a percentage upon the declared dividends of the company exceeding 10 per cent. per annum.

The Imperial Agency Company are inviting subscriptions for shares in the British and Foreign Granite Company, which has been inaugurated with a capital of 50,000*l.*, in shares of 10*l.* each, for purchasing and working granite quarries in various parts of the kingdom. The company has purchased already some valuable and extensive quarries in Guernsey, and the East Heytor Quarries in South Devon. The Guernsey purchase includes the whole of the plant and machinery, and a contract already entered into for the supply of granite for one section of the Thames Embankment, in pursuance of which the stone is now being delivered. The South Devon purchase comprises the East Heytor Quarries, which have hitherto been wrought by an individual proprietor with great success, the stone obtained being of the highest quality, and having been largely used on the South Devon Railway, Teignmouth Sea-wall, the basement of Fishmongers'

Hall, in the British Museum, and many other places. The purchase-money has been fixed at 8000*l.* for the Guernsey property, and 10,000*l.* for that in Devonshire. The new railway from Moretonhampstead to Newton will add greatly to the facilities for developing the latter quarries. It is remarked in the prospectus that granite quarrying has always been a remunerative undertaking, when due judgment has been exercised in selecting the field of operation.

The valuable inventions of Mr. THOMAS DUNN, of the WINDSOR BRIDGE IRONWORKS, MANCHESTER, have been frequently referred to in the *Mining Journal*, and an influential company, with a capital of 120,000*l.*, in shares of 20*l.* each, and with a board of direction including gentlemen resident in all parts of the globe—Manchester, London, Paris, Cadiz and other parts of Spain, Canada, and elsewhere—has been formed, for purchasing the premises, plant, stock in trade, patents, and goodwill of the firm. The business is nearly of a quarter of a century's standing, enjoys an extensive home and foreign connection, and the work turned out embraces that usually taken by engineers, ironfounders, millwrights, and contractors. The works are admirably situated on the Lancashire and Yorkshire Railway, and on the Bolton Canal, and comprise large fitting and erecting-shops, boiler makers' and other workshops, containing the most improved machinery and tools, with steam riveting and forging machinery, and other appliances adapted to the various branches of the business. The mode of settling the purchase is very distinctly laid down—the buildings, plant, and stock are to be taken at a valuation, the patents at 10,000*l.*, and the goodwill at two years' nett profits up to the last balance. The vendors accept 28,000*l.* in fully paid-up shares, and Mr. Dunn will still hold the principal management of the works as heretofore, retaining the chief employés.

At Redruth Ticketing, on Thursday, 1589 tons of ore were sold, realising 7099*l.* 17s. 6d. The particulars of the sale were:—Average standard, 114*l.* 16s.; average produce, 6¼; average price per ton, 4*l.* 9s. 6d.; quantity of fine copper, 99 tons 18 cwts. The following are the particulars:—

| Date. | Tons. | Standard. | Produce. | Price per ton. | Per unit. | Ore copper. |
|---|---|---|---|---|---|---|
| Aug. 10 | 2103 | £112 14 0 | 6¼ | £4 10 0 | 14s. 0d. | £70 0 0 |
| " 17 | 4851 | 119 7 0 | 5¾ | 4 0 6 | 14 2½ | 71 0 0 |
| " 24 | 2947 | 113 8 0 | 6⅛ | 4 9 0 | 14 0 | 70 0 0 |
| " 31 | 2829 | 110 14 0 | 7 | 5 0 0 | 14 3½ | 71 10 0 |
| Sept. 7 | 1589 | 114 16 0 | 6¼ | 4 9 6 | 14 2½ | 71 1 0 |

Compared with last week's sale, the standard has slightly advanced. Compared with the corresponding sale of last month, the advance has been in the standard 1*l.*, and in the price per ton of ore about 1s. 3d.

At the West Sharp Tor Mine meeting, on Wednesday, the accounts for May, June, and July showed a debit balance of 59*l.* 11s. 11d., and arrears of calls amounting to 66*l.*; but the merchants' bills for March, April, May, June, and July, amounting to 558*l.* 15s. 9d., remain unpaid. A call of 5*l.* per share was made. Capt. W. Richards says:—"We have at surface dressed up and in course of dressing over 300*l.* worth of ore, and we will add to the quantity as fast as possible. The machinery continues to work well. I estimate the cost for the next quarter at about 305*l.* per month."

At North Jane Mine meeting, on Thursday (Mr. Robert Cookson, of Leeds, in the chair), the accounts to end of July showed a debit balance of 489*l.* 11s. 10d., which included four months' merchants' bills, and three months' cost. A call of 2s. per share was made. Great satisfaction was expressed by the numerous shareholders present, at the rapid progress which has been made in sinking the new shaft and erecting the engine-house. The prospects for the future are considered most encouraging, only a short time being now required to prove the value of this property.

At Wheal Rose meeting, on Aug. 31, the accounts for May and June showed a credit balance of 239*l.* 10s. 2d. Capts. Tremayne and Truran reported upon the various points of operation.

At the Montes Aureos (Brazilian) Gold Mining Company general meeting, on Tuesday (Mr. John Hockin in the chair), the report of the directors was received and adopted. Details in another column.

The Bank of England returns for the week ending on Wednesday is, on the whole, satisfactory, more money coming into circulation both in commercial and agricultural circles. Compared with last week's return, there has been in the notes issued, decrease, 143,725*l.*; notes in circulation, increase, 103,675*l.*; public deposits, decrease, 109,075*l.*; other deposits, decrease, 284,039*l.*; Government securities in banking department, no change; other securities in banking department, increase, 108,620*l.*; coin and bullion in both departments, decrease, 167,337*l.*; seven day and other bills, decrease, 348*l.*; the "rest," increase, 231,070*l.*; and in notes in reserve, decrease, 267,400*l.* The total reserve of notes and coin in the banking department was 7,270,540*l.* against 7,541,852*l.* last week, showing a decrease of 271,012*l.*

The Confederate Bondholders have formed a committee, to endeavour to find gentlemen able and willing to reimburse them for the losses they have sustained through their unfortunate speculation. A few individual bondholders are seeking to propagate the absurd doctrine that the Government of the United States are liable for the debts contracted by a few of their rebellious subjects, for the purpose of raising money to carry on the rebellion, but, as Mr. Spencer Herapath argued at their meeting, it is evident they must look to payment to the Confederate States rather than to the Federal Government, a somewhat unpleasant admission, seeing that such a nation as the Confederate States has never (except by the Confederate Bondholders, and the gentlemen who stigmatised as guilty of high treason) been recognised either in the Old World or the New. The legal maxim, according to which a State pays the debts of those guilty of treason against it is not yet thoroughly understood. That the question as to the bondholders' lien upon the property, hypothocated to the payment of the alleged debt, would be tried in a United States court is beyond doubt, and the Federal Government would most certainly offer every facility for the trial; but as the whole question of State rights and the rights of the persons hypothecating the property to the property itself would have to be argued, and as the expense would, most assuredly, and very properly, fall upon those seeking to prove the lien, it becomes a question, commercially speaking, whether it would not be more to the advantage of the bondholders to burn the bonds, and endeavour to forget the transaction that placed them in their possession.

The London Merchants' Company shareholders who are desirous of receiving back their deposits, and considering the present position of the company there can be few willing to continue their connection with the enterprise, are invited to send their proxies to Mr. J. S. Cousens, of 62, London Wall. The proxy papers have already been forwarded, and to be valid must be dated, and must have the shareholder's signature and date of meeting (Sept. 12) across the stamp.

The Varna Railway Company will be prepared to pay, on Sept. 17, the half-yearly interest, at the rate 8*l.* 0s. 8d. per cent. per annum, being 10s. per share on the fully paid shares, and 2s. 6d. per share on the 5*l.* shares.

At the Railway Passengers Assurance Company meeting, on Thursday (Mr. W. Clay, M.P., in the chair), the report stated that the premiums of assurance received during the half-year ended June last amounted to 43,586*l.*, against 37,978*l.* in the corresponding period of 1864. Including the balance of 25,969*l.* brought forward from Dec. 31, and the interest on investments, the amount brought to the credit of the revenue account for the six months is 70,328*l.*, while the disbursements amount to 40,613*l.*, leaving 29,715*l.* to be carried forward to the current half-year's account. From this sum interest at the rate of 4 per cent. per annum will be paid to the proprietors, and the balance be retained to meet the risks on policies still running.

The Mauritius Land, Credit, and Agency Company report shows for the nine months a nett profit of 3502*l.*, or nearly 15 per cent. In order to comply with the company's regulations, the directors have carried to the credit of reserve fund the sum of 500*l.*, leaving 3002*l.* to be dealt with. The directors recommend that a dividend of 10 per cent., or 4s. per share, be declared.

With reference to the market for American Securities, Mr. E. F. Satterthwaite reports as follows:—We have again to report a considerable business in the London market for American Securities. There was a disposition to buy United States 6-20 Bonds, on expectation of lower rates for gold, until the arrival of the *Moravian*, reporting the probability of a new loan, when quotations gave way, and after being 69⅛, they dropped nearly 1 per cent., closing 68⅛ to ⅜. For Erie shares there have been numerous enquiries, and we have to note an advance of more than 1 per cent. on the week. Illinois, on the other hand, have been more offered for sale, and although they exhibit no alteration in price from last week, the tone is not strong. In Railroad Bonds there has been but little business, excepting Atlantic and Great Western. The first mortgage of the New York section have been in request, and have advanced $1. The debentures have been more sought for by permanent investors, and close 86½ to 87, with an upward tendency.

The Trinidad Petroleum Company have received advices of the arrival of the *St. George* in the Downs, from Trinidad, with 650 tons of asphaltum.

THE TIN TRADE—ITS STATE AND PROSPECTS.—There has been a large business doing in this article during the past month, but prices have not been affected in a corresponding degree to the amount done. At the beginning of the month, owing to the news of still increasing shipments from the Straits, prices took a downward turn, and it looked as if we were on the eve of a serious fall. This feeling was further strengthened by doubts as to the manner in which the Dutch prompts would be met, as the market in Holland also showed signs of a dropping tendency. After a few sales at a reduction of about 2*l.* 10s. per ton from the prices ruling at our last circular, it became apparent that there was a really strong demand for Straits for home consumption at the low price; again, the continued purchases for export both to the Continent and America clearly proved what we have before called particular attention to, that these countries were almost bare of stocks, and would have to come to London for Straits as the warehouse of the world. We have consumed and exported during the past month upwards of 500 tons of foreign tin, a quantity never before equalled; and, as far as we are able to judge, there does not seem to be any cessation in the demand. Prices have recovered fully 30s. from their lowest. The deliveries in Holland during the past month have also been of a very satisfactory character, for they must not be compared with those of last year, when about 21,000 slabs of Banca were brought over here for a purpose, and were afterwards re-exported to the Continent at prices below those ruling in Holland. We must not, however, in reviewing the position of the article, forget that although the deliveries from stock here have been very good, and seem likely to go on in the same proportion for some time, the supplies from Penang and Singapore are so much in excess of what the best informed were led to expect, that they seem almost to preclude the possibility of any great improvement in price. The supply of Banca seems also increasing, and so long as this continues the prospects for tin cannot be very bright, though there may be, and seems to be, every prospect of a large business doing.—VON DADELSZEN AND NORTH.

THE TIN TRADE.—Under date, Rotterdam, Aug. 31, Mr. L. Th. van Houten writes—Tin was in improved demand in the early part of the month, and about 1200 slabs Banca changed hands at 56 fl., but subsequently some holders pressing their stock for sale, the market became very heavy, and declined to 54 fl. During the last days there was a better enquiry, and the price has recovered to 55 fl. For Billiton there was a good demand at 55 fl. at the commencement of the month; from this a decline to 53½ fl., our present quotation being 54 fl. and 54½ fl. The import of Billiton tin this month amounts to 4100 slabs. The total parcels offered in public sale at Batavia, on July 6, fetched the average price of 59·20 fl., equal to 58½ fl. delivered here. The statement showing the position of Banca tin in Holland on Aug. 31, compiled from the official returns published by the Dutch Trading Company, exhibit, when, compared with those of 1864, an increase of the import for August of 7189 slabs, or 226 tons; an increase of the import for the eight months of 20,661 slabs, or 651 tons; a decrease of the deliveries for August of 23,132 slabs, or 729 tons; a decrease of the deliveries for the eight months of 29,547 slabs, or 931 tons; an increase of the stock second hand of 42,719 slabs, or 1346 tons; an increase of the unsold stock of 25,316 slabs, or 797 tons; an increase of the total stock of 68,035 slabs, or 2143 tons; and a decline of the quotation of 7 fl., equal to 11*l.* 13s. per ton. The Government Returns for the month of June are as follows:—

| EXPORT OF TIN. | June. 1865. | June. 1864. | Six months. 1865. | Six months. 1864. |
|---|---|---|---|---|
| Germany.....Tons | 72 | 109 | 607 | 632 |
| Belgium | 28 | 45 | 160 | 188 |
| England | 17 | 25 | 94 | 178 |
| France | 51 | 80 | 278 | 296 |
| Hamburg | 9 | 6 | 52 | 44 |
| America | — | — | 26 | 18 |
| Other countries | 33 | 17 | 96 | 42 |
| Total | 210 | 282 | 1313 | 1398 |

According to the official returns the import of tin for consumption in France has been—

| | June. 1865. | June. 1864. | 1863. | Six months. 1865. | Six months. 1864. | Six months. 1863. |
|---|---|---|---|---|---|---|
| England....Tons | 94 | 286 | 372 | 1266 | 1128 | 1028 |
| Belgium | — | 10 | 8 | — | 101 | 16 |
| Holland | 77 | 200 | 93 | 331 | 480 | 256 |
| Other countries | 1 | 124 | 30 | 348 | 363 | 175 |
| Total | 172 | 620 | 503 | 1945 | 2072 | 1475 |

In New York and Boston the stock of tin, on Aug. 1, amounted to—1865, 6050 slabs; 1864, 15,700 slabs; 1863, 21,800 slabs.

INCREASE IN THE EXPORTATION OF STEAM-ENGINES.—In the first seven months of this year the declared value was 1,130,591*l.*, against 881,614*l.* last year. Steam-engines valued at 270,582*l.* were sent this year to Egypt.



GREAT STEEL WORKS.—The establishment of F. Krupp, of Essen, is well known in England as the largest steel manufactory on the Continent, and it may be said in the world, notwithstanding the magnitude of some of our Sheffield establishments. The extent of the works is 301 acres, and the length of the railway for interior communication about 12¼ English miles, on which four locomotives and 150 wagons are in constant use. The buildings cover an area of 46 acres. There is a gas-work, and a bakery, and cooking establishments for the unmarried men. In 1864 in the steel-works, exclusive of the collieries and blast-furnaces, which are situated in Nassau and Tayn, there were 6600 workmen. In the same year there were in operation 350 smelting, heating, and puddling-furnaces, 136 steam-engines from 4 to 1000 horse-power, 34 steam-hammers from 1 to 150 tons, 110 smithies, and 508 turning and other machines. The production of 1864 was 27,000 tons of cast-steel, in guns, axles, tyres, springs, rails, boiler-plates, rollers, &c. The productions are sent to every quarter, but chiefly to England, Germany, France, Russia, United States, and India. In May, 1865, the establishment employed 8000 workmen, and the production has increased so enormously that it will be over 50,000 tons for the year. We understand that arrangements which have been for some time in progress for the organisation in England of a great steel work in Styria to supply the Austrian empire are now in course of completion; and from the success of M. Krupp's establishment in Prussia, there can be little doubt that in Austria, where the very best iron in the world for steel making can be obtained, a similar undertaking would be successful and very profitable.

HEATING OVENS FOR DISTILLING COAL.—Mr. J. G. Beckton, of Whitby has patented an invention, according to which he proposes to arrange the series of ovens at suitable intervals apart above a flue or tunnel, whereby the gases required to be utilised are conveyed from the furnaces. Each oven may contain ten or any convenient number of retorts, suspended by their upper ends, leaving their lower ends unconfined, excepting in so far as regards lateral movement, to suitable girders carried by the walls of the oven, and formed as troughs, along which a circulation of water may be kept up for preventing injury to the girder. The oven or chamber in which the retorts are suspended is by preference made oblong in form, and the retorts are suspended in two or more rows running parallel with the direction of the flue or tunnel, so as to leave space between the rows to act as a chamber for the combustion of the gas or gases.

RAILWAYS IN FRANCE.—The total length of railways in France is about 8000 miles made, and somewhat under 5000 miles for which concessions have been granted. The amount of money actually expended is 260,000,000*l.*, and there remains to be expended 104,000,000*l.*, which would make an average of not much less than 30,000*l.* a mile. Of this the Government will have contributed about 57,000,000*l.*, and the companies 307,000,000*l.*

SILVER MINES IN NEW SOUTH WALES.—It has been determined to resume operations at the Mornya Silver Mines by a new process, which has been tried with a model machine on the ores of this mine, and which is stated to have been completely successful in extracting the precious metals. Two trials have been made on the ore with very satisfactory results, the first trial giving 4 ounces of gold and 10 ounces of silver to the ton of ore; and the second trial giving 3 ounces of gold and 14 ounces of silver to the ton of ore.

MANUFACTURE OF MAGNESIUM COMMENCED.—The Boston *Commercial Bulletin* says:—"The American Magnesium Company have just commenced the manufacture of magnesium from dolomite, or magnesium limestone, by the Sonstadt method, and are producing the metal, both crude and refined, in considerable quantities. We do not doubt but that, as in other matters, perseverance will conquer all obstacles, and insure its success."

TRURO MINING MARKET.—There has been little doing in the Share Market. A few mines are, however, enquired after—Wheal Jane, Falmouth and Sperries, Wheal Rose, and Cargoll; all the other mines of the district are very flat. The prices may be quoted as follows:—Wheal Jane, 14*l.* to 15*l.*; Sperries, 30s. to 35s.; Cargoll, 28*l.* to 29*l.*; East Carn Brea, 5½*l.* to 6*l.*; North Treskerby, 2½*l.*; West Chiverton, 75*l.*; Clifford, 17*l.* to 17½*l.*; Wheal Chiverton, 8½*l.* North Chiverton has sampled 50 tons of rich blende, and will sample another 50 tons in a few days.

BEARIZ TIN STREAMING COMPANY.—Vice-Chancellor Sir W. Page Wood will appoint an official liquidator of this company on Oct. 30.

RAILWAY CALLS.—The amount falling due in September is 604,436*l.*—making a total of 10,479,230*l.* called during the nine months of 1865.

## SILVER-LEAD ORES.

| Mine. | Tons c. q. lbs. | Price per ton. | Purchasers. |
|---|---|---|---|
| Aug. 4—Llanfynach | 20 7 0 0 | £13 8 6 | Panther Co. |
| 30— ditto | 20 6 2 0 | 11 0 0 | ditto |

## LEAD ORES.

| Date. | Mines. | Tons. | Price per ton. | Purchasers. |
|---|---|---|---|---|
| Sept. 1 | —Minera | 100 | £12 4 6 | Walker, Parker, & Co. |
| — | ditto | 100 | 12 4 6 | ditto |
| — | ditto | 100 | 12 4 6 | ditto |
| — | ditto | 44 | 12 4 6 | ditto |
| — | ditto | 71 | 12 4 6 | ditto |
| — | ditto | 60 | 12 4 6 | ditto |
| Sept. 4 | —Minera Boundary, &c. | 20 | 12 7 6 | ditto |
| Sept. 5 | —Maes-y-safn | 70 | 12 1 6 | A. Eyton. |

Correction of name of mine in the Journal of Aug. 26:—

| | | | | |
|---|---|---|---|---|
| Aug. 24 | —Glan Alun, *not* Nant Allyn | 20 | £11 18 6 | Walker, Parker, & Co. |
| — | ditto | 5 | 15 10 0 | ditto |

## BLENDE.

| Date. | Mine. | Tons. | Price per ton. | Purchasers. |
|---|---|---|---|---|
| Aug. 31 | —Great Laxey | 300 | £ 3 17 0 | Vivian and Sons. |
| Sept. 1 | —Minera | 100 | 4 12 0 | ditto |
| — | ditto | 43 | 4 16 0 | H. Southern. |
| — | ditto | 30 | 4 16 0 | ditto |
| — | ditto | 26 | 4 0 0 | ditto |
| — | ditto | 21 | 5 0 0 | ditto |
| Sept. 2 | —Great Laxey | 300 | 3 17 0 | C. Sanders. |

## BLACK TIN.

| Date. | Mines. | Tons c. q. lbs. | Price per ton. | Amount. | Purchasers. |
|---|---|---|---|---|---|
| Aug. 30 | —Wheal Hope | 1 0 2 23 | £54 15 0 | £ 56 13 6 | —Trethellan. |
| Aug. 31 | —Prosper United | 5 16 3 0 | 53 10 0 | 312 6 0 | —Mellanear. |
| — | ditto | 1 9 1 5 | 44 0 0 | 64 8 11 | ditto |
| — | —Pedn-an-drea | 11 10 3 23 | — | 630 14 7 | — |
| Sept. 2 | —Wheal Uny | 10 6 0 9 | 51 5 0 | — — | — |

## COPPER ORE.

| Date. | Mine. | Tons. | Price per ton. | Purchasers. |
|---|---|---|---|---|
| Sept. 6 | —Great Laxey | 120 | £5 17 0 | Newton, Keates, & Co |

## COPPER ORES.

Sampled Aug. 23, and sold at Tabb's Hotel, Redruth, Sept. 7.

| Mines. | Tons. | Price. | Mines. | Tons. | Price. |
|---|---|---|---|---|---|
| East Carn Brea | 69 | £3 3 6 | West Basset | 56 | £10 10 6 |
| ditto | 58 | 3 8 0 | ditto | 28 | 10 15 6 |
| ditto | 57 | 6 17 6 | East Rosewarne | 52 | 8 1 0 |
| ditto | 56 | 3 19 0 | ditto | 51 | 8 6 0 |
| ditto | 48 | 3 10 6 | ditto | 46 | 10 16 6 |
| ditto | 36 | 3 14 0 | ditto | 30 | 1 17 0 |
| ditto | 18 | 3 12 6 | ditto | 12 | 4 14 0 |
| Prosper United | 74 | 5 13 6 | Copper Hill | 37 | 1 13 6 |
| ditto | 71 | 3 7 6 | ditto | 31 | 5 11 6 |
| ditto | 70 | 1 10 6 | North Basset | 41 | 1 9 0 |
| ditto | 53 | 2 10 0 | ditto | 22 | 4 11 6 |
| ditto | 49 | 4 8 6 | New Rosewarne | 32 | 6 13 6 |
| Wheal Margery | 68 | 1 11 6 | ditto | 15 | 2 7 6 |
| ditto | 60 | 2 0 0 | Tolvadden | 22 | 4 6 0 |
| ditto | 58 | 1 16 6 | ditto | 7 | 2 5 0 |
| ditto | 45 | 4 13 0 | West Grylls | 12 | 2 18 6 |
| ditto | 37 | 5 7 6 | ditto | 2 | 5 0 0 |
| West Basset | 85 | 3 4 6 | Wheal Uny | 12 | 5 6 6 |
| ditto | 71 | 5 5 0 | | | |

TOTAL PRODUCE.

| | | | | | |
|---|---|---|---|---|---|
| East Carn Brea | 340 | £1389 19 0 | North Basset | 63 | £ 160 2 0 |
| Prosper United | 317 | 1115 13 0 | New Rosewarne | 47 | 249 4 6 |
| Wheal Margery | 268 | 741 1 6 | Tolvadden | 29 | 110 7 0 |
| West Basset | 240 | 1537 19 6 | West Grylls | 14 | 45 2 0 |
| East Rosewarne | 191 | 1451 15 0 | Wheal Uny | 12 | 63 18 0 |
| Copper Hill | 68 | 234 16 0 | | | |

Average Standard.....£114 16 0 | Average Produce .....6¼
Average Price per ton .....£4 9 6
Quantity of Ore ..... 1589 tons | Quantity of Fine Copper, 99 tons 18 cwts.
Amount of Money .....£ 7099 17 6
LAST SALE.—Average Standard.....£110 14 0.—Average Produce .....7
Standard of corresponding sale last month, £112 14 0.—Produce, 6⅞.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

| Names. | Tons. | Amount. |
|---|---|---|
| Vivian and Sons | 131⅔ | £ 734 19 10 |
| Freeman and Co. | 85 | 319 16 0 |
| Grenfell and Sons | 152 | 1129 2 10 |
| Sims, Willyams, and Co. | 268 | 756 15 6 |
| Williams, Foster, and Co. | 285½ | 1159 5 6 |
| Mason and Elkington | 187⅔ | 1091 18 7 |
| Bankart and Sons | 96 5-6 | 489 9 3 |
| Copper Miners' Company | 85 | 274 2 6 |
| Charles Lambert | 237½ | 833 8 6 |
| Newton, Keates, and Co. | 52½ | 293 2 9 |
| Penclawdd Copper Co. | 7½ | 17 16 3 |
| Total | 1589 | £ 7099 17 6 |

NO SALE on Thursday next.

Copper ores for sale at the Royal Hotel, Truro, on Thursday week—Mines and parcels.—Devon Great Consols 2025—New Wheal Martha 568—Hingston Down 483—Marke Valley 427—East Caradon 425—Wheal Friendship 209—Bedford United 141—Wheal Emma 139—Okel Tor 131—East Wheal Russell 103—Lady Bertha 61—Fursdon 41—Wheal Edward 34—East Phœnix 31.—Total, 4818 tons.

Copper ores for sale at Swansea, Sept. 12.—Cobre 90, 89, 83, 37, 86, 66, 38, 84, 31, 30, 15, 13, 1, 24—Cuba 116, 114, 15, 113, 100, 12, 90, 51, 6, 6—Mixed Ore 1—Berehaven 99—Victor Emanuel 21, 11—Sardinian Ore 60.—Total, 1507 tons.

## WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. Watson and Cuell having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. Watson and Cuell transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. Watson and Cuell also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. Watson and Cuell are almost daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. Watson and Cuell having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

Dyffryn Castell.—This mine has just sold 70 tons of blende, 35 tons at 2*l.* 5s., and 35 tons at 2*l.* 9s. per ton, and has about 60 tons more in course of dressing, with large quantities laid open. The lode in the eastern level is daily improving in size and appearance, with strings of lead, &c., and a course of ore expected in a few fathoms further driving.

The Weight of Sheet-Iron—An Invaluable Ready-Reckoner.—It not unfrequently happens that, although we may know the superficial extent and thickness of the iron plates which we intend to use, it is a very tedious process to ascertain how much that iron will weigh with sufficient accuracy to be enabled to frame an estimate of cost, for to find the solid contents in cubic feet of a plate (say) 7 ft. 5 in. long, by 2 ft. 9½ in. wide, and 11-16th inch thick, although simply a matter of calculation, is one which requires some minutes to perform, and often leaves the operator in much doubt as to the accuracy of his results when he has obtained them. To remove the difficulty, Messrs. Harrison, Burlinson, and William Henry Simpson have undertaken and completed the laborious task of compiling an elaborate ready-reckoner, extending over 219 pages, each page containing 15 columns of figures, and each column 55 lines. The title chosen for the work is "The Iron Shipbuilders', Engineers', and Iron Merchants' Guide and Assistant;" and we opine that, at least for this especial class of labour, he will find few assistants either able or willing to render him an equal amount of service. The tables contain upwards of 153,000 distinct and separate calculations, each worked out on the basis of 40 lbs. to the square foot of iron 1 inch in thickness, and they give the calculated weight of every size of plate used, from 1 ft. × 6 in. × ¼ in., up to 10 ft. × 5 ft. × 1 in.; and as the lengths increase from the smallest to the largest by inches, the breadths by half inches, and the thicknesses by sixteenths, it is scarcely possible to conceive a question that would arise in practice the solution of which could not be obtained from the tables. And it is not alone to the calculation of the weight of square plates that the tables can be applied, for, as the authors explain the weight of a plate of taper section, or any size whatever (provided the sides be without curve), can be ascertained from the guide with the utmost facility, whilst the accuracy is guaranteed, each calculation having been carried out to the 1000th part of a pound, and carefully proved. The authors remark that they were for many years connected with large ironworks in the North of England, where they had continually recurring opportunities of observing the great want of such a work as that now issued, and they submit it to the public with the utmost confidence, feeling fully assured that its value will be acknowledged by all to whose profession it particularly relates. That the value of the work will be appreciated we do not doubt, whilst the good policy of the authors in fixing the price at only 25s.—an extremely small sum, considering the labour involved, and the general utility of the work—cannot fail to secure it an amount of patronage which will prove a fair compensation for the work done. As in all books of this description, the most important point, next to the accuracy of the calculations, is the distinctness and legibility of the typography, we may state that the work is printed and published by Messrs. McCorquodale and Co., and that the type used is good and legible, and that the workmanship is all that could be desired. The work will, undoubtedly, have an extensive sale, and long enjoy an honourable place in the office of the engineer, the shipbuilder, and the merchant.

The Life Liabilities of the Royal Insurance Company.—Another interesting pamphlet, elucidatory of the principles of life assurance, has just been issued by Mr. Percy Dove, the actuary of the Royal Insurance Company, through Messrs. Truscott and Co., of Suffolk-lane. The author has not only recorded the mortality amongst the lives insured, but has likewise stated the number of deaths amongst the lives declined, and an opportunity is thus afforded of estimating the amount of care that has been exercised in the acceptance of lives. The book is written in a style well calculated to lead the non-professional reader to acquire an insight into the general character of life assurance, and to comprehend that actuarial calculations are not entirely devoid of a reliable foundation. Several beautifully coloured diagrams are given, showing the probable and actual deaths, and the probable and actual sums payable in respect of claims; as well as the curves, giving at a glance the numbers out of which one will die in each year. The Royals appear to have been particularly fortunate in avoiding foul tables, which reflects much credit upon the management, and at the same time permits the payment of such satisfactory bonuses to those insured. The exact position of the institution can be ascertained from Mr. Dove's pamphlet, which may be most profitably studied by all.

Paper Tubes and Boards.—Reference has frequently been made in the columns of the *Mining Journal* to the proposal to substitute paper for iron in the manufacture of pipes, but the experience yet obtained with them has not been favourable; Col. Szerelmey now claims, however, that by employing zopissa paper pulp he can make boards stronger and cheaper by 50 per cent. than oak, indestructible, and perfectly waterproof. They can be made of any length and thickness, and may be cut to any shape, like wood, with a common saw. They will resist a pressure of 250 lbs. to the square inch, or more if required. They are said to be suitable for shipbuilding, the construction of portable houses, roofing, flooring, coach-panels, boxes, piano and packing-cases, &c. The paper pipes, for water, gas, liquid manure, &c., are produced from the same substances as the boards, and have the same properties. They can be made of any length, diameter, and thickness required, and can be constructed to bear almost any pressure to the square inch. They are said to be 50 per cent. cheaper than iron pipes; they are not affected by gas or water, not being porous no leakage can take place from them, and the material being a non-conductor of heat or electricity they possess many advantages over all other pipes, besides keeping the passing water cool in summer and unfrozen in winter. Rocket tubes, cartridge cases, large guns, and even houses are to be manufactured of this paper. Its power of resisting shot is said to be 10 to 1 greater than that of oak. It can be easily moulded to any form desired. It is capable of being used in mass, without waste, like fusible metal. It is entirely free from moisture; and while any ordinary paper would corrode iron, this can be made to adhere to and form a covering impervious to water over it. It is said that it must eventually be generally used as a covering for boilers, steam-tubes, funnels, &c. The raw material, we are informed, is much cheaper than any now in use, and its manufacture simple.

Manufacture of Flat Chain.—An invention has been patented by Mr. James Webster, of Birmingham, which consists in forming flat chain either in bands for pit chains, driving bands for machinery, and other similar purposes, or in sheets for armour-plating, bridge building, and various other like purposes, by interlacing or screwing together separate lengths of coiled metal rods or wires. Each of these metal rods or wires is first formed into an open twist or coil of any desirable length and thickness. Two of these coils are then screwed or interlaced together, coil within coil, and any additional number of coiled rods or wires are similarly interlaced, until the length or area of the chain is formed.

Large Wire-Ropes in America.—The Lehigh Coal and Navigation Company have had recently manufactured at the wire mill of Messrs. Hazard and Company two immense wire-ropes. The largest of the two has been conveyed over the Lehigh Valley Railroad, and will be placed on the Canal Company's plane near Wilkesbarre. Its length is 5200 ft., which is within 80 ft. of a mile; it is 1⅝ in. in thickness, and weighs 22,480 lbs.—*United States Railroad and Mining Register.*

Gunpowder and Electricity.—It is stated as a remarkable fact that electricity travels so rapidly that it may be sent through gunpowder without igniting it; and it is only when the current is retarded that an explosion takes place.



## Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly *filed* on receipt: it then forms an accumulating useful work of reference.

Treatment of Mundic.—Will some of your readers kindly inform me for what purpose or purposes mundic is used? I propose to calcine it. Is it probable that the process will cause it to throw off noxious gases or fumes injurious to health or to vegetation, or such as to be esteemed a nuisance? I purpose to calcine other minerals. What is the best form of furnace, and where to be seen in operation?—Tubal.

Limited Liability.—In a tin mining company (limited), shares paid up, can the directors make and enforce payment of any further call from the shareholders, even if a majority of the latter in general meeting had voted for the purchase of more ground? In other words—Are the shareholders liable to further calls, being Limited, under any circumstances, even in winding-up?—A.

East Fowey.—Will either of the late directors in this mine kindly inform me through the Journal when Mr. Balcombe (the liquidator) will have funds to pay the outstanding bills in the neighbourhood of the mine, and how letters must be addressed to insure a reply?—A Creditor.

Wheal Rose.—I think a little explanation of the accounts presented at the last meeting would not be unacceptable to many shareholders, and among them to myself; and I feel sure that Mr. Michell will kindly give the desired information.—1. How it is that at the last meeting a debit balance was shown of 130*l.* 17s. 3d., when at the one just held there is as an asset a balance of 1294*l.* 12s. 9d.?—2. What this 1294*l.* 12s. 9d. is derived from?—3. That the balance of 239*l.* 10s. 2d. shown in the present account in favour of the mine, if taken with the amount of 1294*l.* 12s. 9d., would after paying off all liabilities leave 479*l.* 0s. 4d. to the credit of the account, instead of 239*l.* 10s. 2d., as at present shown. The mine seems to be in a favourable state at the present moment.—Wm. H. Cuell, Jun.: *London, Sept.* 8.

Tryphena Pendarvis.—It is now more than two years since the materials were sold, for the sum of 1801*l.* Will the purser kindly say if these materials have been paid for, and, if so, when he intends to settle with the shareholders?—J. H.: *Camborne.*

East Carn Brea.—Holding shares at over 300*l.* cost, I can easily sympathise with "A Holder of Many Shares," in any amount of dissatisfaction he may feel at seeing or believing that the property of the shareholders is being depreciated through the "vacillation," or, in other words, the mismanagement, of those in whom the acting power is vested. It seems quite evident that whatever "respect, or want thereof, Capt. Glanville may have for his character," or whatever his qualifications or otherwise as an agent, his position as to the committee of management cannot fail being unsatisfactory to himself and to those possibly more deeply interested in the development of the mine. Some two months since the shareholders, many doubtless hope-sick, had their spirits buoyed up with a 5s. dividend; two months later they get nothing—and why? My account from the meeting shows—Balance in hand, 1625*l.* 12s. 2d.; ore bills, 1967*l.* 11s. 1d.: making a total of 3593*l.* 3s. 3d., with "400 (340) tons better-class ores ready for sale," against a 530*l.* royalty due in September. "The mine never looked so well as at present," and yet 1500*l.* cannot be found for a 5s. dividend. What extraordinary cost is to be incurred in the next two months' working, and for what? In order to remove an impression that at the time the 5s. dividend was declared the mine was less capable of so doing than when it declared none.—Who's at Fault.

South Lady Bertha.—Will some one interested kindly inform an outside shareholder through the Journal what amount of call or calls had been made by Vice-Chancellor Wood in the winding-up of this company previous to the 1*l.* per share made by him on Aug. 5?—An Old Subscriber.

British and Foreign Mining Financial Association.—An endeavour is about to be made to compel the directors of this enterprise to refund in full the deposits paid upon application and allotment, on the ground that there was no justification for commencing business with so limited a number out of 10,000 shares subscribed for; and it is rumoured that the directors consider they have a defence in the fact of a general meeting having been held, which sanctioned their proceedings up to that date. Can you state in your Notices to Correspondents whether attendance at that meeting would prevent the taking of proceedings, and also whether the whole of the money-paying shareholders were present at the general meeting?—[If the reports and statements of account were printed and circulated amongst the shareholders previous to the meeting, a question might be raised as to whether the directors' proceedings were sanctioned by silence; if no such circulation were made the shareholders could not be prejudiced, since they could not learn the position of affairs until those documents were before them; it is, however, doubtful whether, in any case, the shareholders who did not attend would be prevented from proceeding.]

Tamar Consols.—We have received several communications about this mine, and are asked when the money said to be in hand for more than twelve months—and exceed-1000*l.*—is to be divided among the unfortunate shareholders? Perhaps the directors can inform us.

Tyddin Sheffreys Slate Company.—In the Journal of Aug. 26 is a letter in reply to your notice of the previous week, but I ask anyone to say if it is an answer? All my facts remain uncontradicted, and, indeed, unquestioned. And I ask, therefore, what the public can think of a company where the entire capital is absorbed in purchase of ground and cost of management, leaving not a penny of capital for development of the quarry, and the future outlay is to be met by borrowing at 15 per cent.? The whole thing is clearly out of course, and the remedy appears to be with the Court of Chancery alone. The directors say "that they purposely abstained from any considerable outlay until they had to the satisfaction of a first-class slate authority proved *the existence* of the slate." This little tallies with what they did; for it seems they paid away 25,000*l.* of the capital in the purchase (out of 30,000*l.*) before they sought any advice whatever, and, as I before remarked, the remainder of the capital went to pay law costs (480*l.*) and directors' expenses. What they did in proving the quarry, it would seem, was upon credit, and is a debt on the property. Is such the way slate quarries in Wales are got up and managed?—A Shareholder.

Carysfort Mining Company.—We are compelled to postpone the publication of Mr. J. H. Hitchins's letter, in reply to "A Shareholder," until next week's Journal.

St. David's Gold Mining Company.—In the report of the meeting of this company published in last week's Journal, the third line of Mr. Arthur Dean's speech was, by an unfortunate typographical error, omitted; in the subjoined the omission is italicised:

Mr. A. Dean, consulting engineer, in reply to questions, stated that the first time he visited the property he certainly formed an unfavourable opinion of it, but at the *same time considered that the stuff ought to be tested before any decision could be arrived at.* He was instructed to make those examinations, and, &c., &c.

New Clifford.—The letter of "J. S." was not considered adapted for publication. We are always glad to be corrected when in error, and to insert communications when the contents are of general interest, but personal questions and matters of detail should be addressed to the office.

Glan Alun.—In the Sales of Lead Ores, in the Journal of Aug. 26, this mine was erroneously named as the Nant Allyn. We are requested to correct this, as inaccuracies of the kind are of rather serious import.

We have a letter from Bombay for Mr. J. S. Trenwith; on calling at our office it can be obtained, or by sending his address it shall be forwarded.

# THE MINING JOURNAL
## Railway and Commercial Gazette.

*LONDON, SEPTEMBER* 9, 1865.

At a time like the present, when the complaint is very generally heard that our mining industries are in a very depressed condition, it is gratifying to be enabled to bring forward evidence that periods of similar, and even greater, depression have been passed through, and that, too, at dates not very remote, without inflicting more than the most temporary inconvenience upon mine adventurers. Both tin and copper appear now to have reached the lowest quotation likely to rule, and although no material rise may take place for some time in either metal, it may fairly be concluded that the greatest difficulties have been passed through, and that the season has arrived for capitalists to invest before a reaction sets in. With respect to copper, it appears probable that low prices will not continue so long as was a few weeks since anticipated, and the prospects of the tin trade are already brightening, the large stocks of Banca and Billiton tin being now in the market on favourable terms, whilst good American orders for tin-plates, the demand for which has, of course, a considerable influence upon tin, are being received at better rates. The relative prices during the past 32 years obtained for the tin ore sold from the Providence Mines has been embodied in an interesting statement prepared by the purser of that adventure, and were the purser of an equally well established copper mine to publish a corresponding statement with reference to copper, information would be at the disposal of adventurers which would tend materially to maintain their confidence in the enterprise in which they are embarked. The statistics of a single mine are so far superior to those of the whole mines of the county, because there is a better assurance that the character of the ore does not widely differ, whilst the fact of the figures being adjusted to a uniform standard enables the uninitiated to make the comparison with the utmost facility.

One chief peculiarity in mining is that the produce of mines is at all times saleable for ready money, and that, consequently, the produce at least assists the capital account from the first opening of the vein. In the case of the Providence Mines this has been particularly apparent, the produce having so largely contributed to meet current cost as to enable the capital originally invested to be returned eight times in 32 years—a very satisfactory state of things when it is considered that if capital be only doubled twice in 40 years the interest obtained would be equal to 5 per cent. The adventurers in Providence Mines (which comprise a consolidation of Wheal Providence, Wheal Comfort, Wheal Laity, Wheal Speed, Good Fortune, and other small mines) subscribed as capital by easy instalments, between 1832 and 1848, the sum of 10*l.* 6s. 7d. per share, or 11,569*l.* 8s. 1d. in all, and with this 102,220*l.* 2s. 10d. worth of work was done by applying as capital the money obtained for produce. Since that time no less than 78*l.* 7s. 6d. per share, or 87,780*l.* in all, has been returned in dividends. The subjoined is a tabulated statement of the prices obtained for the tin ore and the dividends paid:—

| | Average price per ton. | | Dividend per share. | Total. |
|---|---|---|---|---|
| 1833 | £70 0 0 | *4 years, £81 5 0 | | |
| 1834 | 70 0 0 | | | |
| 1835 | 85 0 0 | | | |
| 1836 | 100 0 0 | | | |
| 1837 | 42 2 6 | 5 years, £45 18 6 | | |
| 1838 | 38 14 4 | | | |
| 1839 | 43 19 0 | | | |
| 1840 | 50 14 6 | | | |
| 1841 | 54 2 0 | | | |
| 1842 | 35 18 0 | | | |
| 1843 | 36 2 0 | | | |
| 1844 | 41 18 9 | 5 years, £43 4 3 | | |
| 1845 | 51 10 9 | | | |
| 1846 | 50 12 0 | | | |
| 1847 | 46 10 6 | | | |
| 1848 | 42 12 0 | | | |
| 1849 | 44 17 6 | 5 years, £45 3 10 | | |
| 1850 | 45 0 0 | | | |
| 1851 | 46 17 6 | | | |
| 1852 | 53 7 8 | | — | — |
| 1853 | 67 2 9 | | 0 15 0 | 840 0 0 |
| 1854 | 67 0 9 | 5 years, £67 0 6 | 1 7 6 | 1,540 0 0 |
| 1855 | 68 6 3 | | 5 12 6 | 6,300 0 0 |
| 1856 | 79 5 0 | | 9 0 0 | 10,080 0 0 |
| 1857 | 72 13 6 | | 9 0 0 | 10,080 0 0 |
| 1858 | 66 10 0 | | 4 10 0 | 5,040 0 0 |
| 1859 | 75 16 0 | 5 years, £71 0 6 | 10 7 9 | 11,604 0 0 |
| 1860 | 70 15 0 | | 7 15 0 | 8,680 0 0 |
| 1861 | 69 5 0 | | 4 0 0 | 4,400 0 0 |
| 1862 | 65 3 9 | 4 years, £62 10 0 | 4 10 0 | 5,040 0 0 |
| 1863 | 66 6 6 | | 4 15 0 | 5,320 0 0 |
| 1864 | 63 10 2 | | 4 5 0 | 4,760 0 0 |
| 1865 | 54 18 6 | | †3 2 6 | 3,500 0 0 |
| Total | | | £78 7 6 | £87,780 0 0 |

No dividends were paid from the commencement in 1832 until 1848; previous to the latter date there was expended:—

| | |
|---|---|
| Calls paid | £11,569 8 1 |
| Copper ore sold | 53,940 0 0 |
| Tin ore sold | 34,746 18 4 |
| Uranium sold | 26 4 4 |
| Sundries | 1,937 12 1 |
| Total | £102,220 2 10 |

* The figures for the first four years refer to metallic tin; the average for black tin was 60*l.* 15s. per ton. † For three-quarters of a year only.

The success of the adventure is considered to be mainly attributable to the judicious policy of the lords—Mr. Praed, the Basset family, Mr. Stephens, and Mr. Gilbert—in giving up dues for a time, which enabled the adventurers to prosecute the concern, and bring it to its profitable state The general statement of accounts, from the commencement to the present time, shows—

| | | |
|---|---|---|
| Cr.—Received for calls, 10*l.* 6s. 7d. per 1120th share | £ 11,569 8 1 | |
| Copper ore, 9719 tons 19 cwts. 1 qr., at about 6*l.* | 58,209 12 7 | |
| Tin, 5412 tons 15 cwts. 2 qrs. 1 lb., at 61*l.* 12s. 6d. | 333,538 17 1 | |
| Pitch blende or ore of uranium | 26 4 4 | |
| Sundries | 2,629 14 0 | = £406,373 18 1 |
| Dr.—Mine cost paid | £303,683 2 10 | |
| Dues | 14,287 3 1 | |
| Sixty-five dividends, 78*l.* 7s. 6d. per 1120th share | 87,780 0 0 | = 405,750 11 11 |
| Leaving balance to credit of next account | | £ 623 10 1 |

The period during which the dues were suspended extended from March, 1840, to May, 1849, and the difficulties which the adventurers had to contend with during that time may be judged of from the fact that in May, 1846, that portion of the sett called Wheal Providence, from which the copper was principally raised and sold up to that time, amounting to 51,775*l.* 15s. 5d., failed, and was abandoned.

[FROM A CORRESPONDENT.]

The standard for copper ore declined again on Thursday last at the Tuesday meeting, this, too, in the face of an unusually small sale for the ensuing week, and no sale in the week following. We had hoped a reverse to this state of things, and cannot but confess matters look gloomy in the horizon of British mining. The state of the tin trade also tends to despondency, as lead is only just able to maintain its position. Other metals, except iron, partake of the same dulness. The Money Market appears to be abundantly supplied, but as long as the metals keep so low in price it will be next to impossible to create a demand for mining stocks, except in individual and particular instances. Even the splendid discoveries at the Great Wheal Vor have failed to cause anything like excitement, nor do we think ever so great an improvement would create a demand in London, what ever it might do in the Cornish markets, where an absolute stillness reigns. An old proverb says—"It is always darkest immediately before dawn." We hope and trust it may be so in this instance. Persons who have been long acquainted with mining know its vicissitudes; they know, too, how soon the reaction, which must of necessity come, will compensate for past difficulties, and tend to a revival of general prosperity; but to the necessity these temporary stagnations appear absolutely disastrous. They who have bought into stocks at high premiums may well think so. We beg them take heart; the good time coming is daily, hourly drawing nearer. We hope the mere improvement in a single mine or two will not be the cause of an advance beyond legitimate demand. We should infinitely prefer a healthy, which will be permanent. Good frequently comes out of evil. The present depression will, of necessity, clear the market of a vast deal of spurious concerns, got up but to betray unwary adventurers. It will also be the means of suppressing many mines which are pouring large quantities of ore into the market at a decided loss to the proprietors. It will most probably be the cause of inducing greater liberality on the part of landowners, who will prefer loosening their purse strings to losing the purse-strings and all, as must assuredly be the case if some of them insist on a pound of flesh. It has already done good, by causing more strict attention on the part of committees, agents, and men. We, for ourselves, look forward to a great future from these causes, notwithstanding the state of the metal or mining markets of London or Cornwall.

China-Clay and Stone Works in Cornwall.—Consequent upon a paragraph appearing in last week's Journal, we have been led to turn our attention to and make some enquiries respecting these works. We find that of the numerous works in operation within the districts of St. Austell, St. Stephens, and St. Enoder nearly the whole are held locally, some works being carried on by individuals alone, and the others by companies of three or four to ten or twelve adventurers. We cannot learn that there is more than one joint-stock company in existence at present, and we account for this only that the china-clay merchants know better than to allow such good things to pass out of their hands, the profits on the clay being, we are informed, from 15 to 30 per cent., and that of the stone from 30 to 40 per cent. Seeing that nearly all the works are carried on with little or no machinery, very large capital is not required; and when we find that from the quantities shipped from the districts referred to a profit annually being derived of above 100,000*l.*, we can readily account for the thriving condition of the town and inhabitants of St. Austell, as most of the clay merchants reside there. We wonder that our mining capitalists do not look after this class of far less, if at all, speculative property.

The Foreign Coal Trade.—It is worthy of note that, notwithstanding the great increase in the production of indigenous coal in France, notwithstanding, too, the competition of Belgian and Prussian coal, the French demand for English "black diamonds," which sustained a check in 1861, and remained nearly stationary in 1862 and 1863, has been largely increasing this year. In July we sent 142,584 tons of English coal to France, as compared with 92,166 tons in July, 1864, and 105,381 tons in July, 1863. In the seven months ending July 31 this year the exports of coal to France amounted to 928,702 tons, as compared with 825,190 tons in the corresponding period of 1864, and 772,492 tons in the corresponding period of 1863. The exports of coal to Prussia, which were immensely curtailed in 1864, in consequence of the blockade of the Prussian ports during the Dano-German war, have revived this year, having risen

334,769 tons during the seven months ending July 31, while in the corresponding period of 1864 they were 82,658 tons, and in the corresponding period of 1863, 304,995 tons. The exports of coal have also increased this year to Russia, Sweden, Denmark (very considerably), the Hanse Towns, Brazil, and British India. On the other hand, they have declined to Holland, Spain, the United States, Italy, &c. Regarded as a whole, our coal exports show a constant progress, having amounted to July 31 this year to 5,177,774 tons, against 4,898,056 tons in 1864, and 4,671,967 tons in 1863 (corresponding periods). French journalists have talked very loudly of late of the folly of paying a tribute to England in the matter of coal; nevertheless the value of the coal sent to France to July 31 this year was computed at 416,207*l.*, as compared with 347,897*l.* in 1864, and 315,893*l.* in 1863 (corresponding periods). Thus the "tribute" is increasing in gravity rather than otherwise.

COAL TRADE IN EUROPE.—The extraction of coal in France in 1863 was estimated at 10,000,000 tons, and the import of foreign coal was 5,344,260 tons; the consumption amounted to 882 lbs. per head. Belgium produced 10,000,000 tons, but exported 3,500,000 tons. The 6,500,000 tons which it consumes represents 2822 lbs. per head, or three times as much as France. England produces 86,000,000 tons of coal, of which 7,934,000 were exported. The internal consumption, therefore, is about 78,000,000 tons, which represents 6394 lbs. per head, or about seven times as much as in France. One-third of the coal used in France is imported from England, Belgium, and Prussia.

## BRITISH MINING IN 1865.

Probably we shall not be wrong in assuming that there is not a subject connected with the affairs of England on which more misconception prevails than that of British Mining. Everyone is free in having his say on this subject, and by far the greatest number ascribe to it all the evil attributes that could possibly be connected with any one subject. It is somewhat singular that so many people should be apparently so anxious to decry one of the most valuable of the great sources of industry of this country; and there must be some reason for it. It will be the object of this paper to endeavour to expose the causes that have operated on men's minds in producing so sweeping a condemnation, as well to show a fair statement or balance-sheet of mining accounts, taken in its most extensive form at the present day. We venture to predict that when the whole of the evidence is before the public a different verdict will be given as to the merits of mining, to say nothing of miners. With reference to the shortcomings of miners, it must be admitted that mining is an obscure calling, and with the most professional of men there is some difficulty in always dealing in perfect accuracy in carrying out practical underground operations; this cause, no doubt, leads to some mistakes, some losses, and a great deal of animadversion. It is fair to assume, however, that some of this is unmerited, inasmuch as that the irregularity of ore deposits and lodes sometimes elude the application of the usual rules, based on the uniformity of natural mineral laws. Some of it is, no doubt, merited, inasmuch as that miners do not sufficiently study those laws, and thereby occasion an expenditure that possibly might have been saved, and creating a waste of capital that reflects upon the whole career of mining unfavourably, and, we fear, we cannot deny that others more unscrupulous still than the mining agents, have, seeing that the subject, to a certain extent, is veiled in obscurity, taken advantage of that obscurity to further their own interest, by deceiving the world as to their abilities, pretending to be miners, while they know nothing of the subject; and, as a matter of course, we know the loss that is occasioned by quacks in every department of science. To them the very darkness of mining is its most valuable quality; for after misleading their dupes they ask, with well similated simplicity, who could have foretold the result in such a dark affair as this?

There is, no doubt, too much wickedness practised in this well-abused business. The knowing ones, whose sins are not covered by ignorance, say, since the science of mining is so abstruse who can find it out if we lead our friends into a quagmire? But, with all its drawbacks, the balance-sheet of mining still presents a healthy account, showing results for the investors of money almost as good as could be desired, and far better than could be expected from the dolorous tone generally taken with regard to it; but, as deeds speak better than words, we have undertaken to analyse one of the *Mining Journal* Share Lists, showing the results of capital as applied to upwards of 400 British mines now working, and worked for all sorts of metals except gold and iron. These we deem of sufficient importance to merit a synopsis of their own, and, no doubt, if it were found necessary, such a statement would be soon forthcoming.

There is very little misunderstanding upon the subject of the dividend mines; the statistics of these are well studied in England, and the results known individually. Possibly the facts connected with them, as a whole, are not so clearly understood, and, perhaps, we may throw some further light on this subject, by comparing them with the non-dividend mines. It is these, or, as they are often called, the progressive mines, that have occasioned in the mind of the speculator so much doubt as to the general value and progress of mines. The number of these mines is so great that people hardly seem to care to take the trouble of looking the facts connected with them in the face, and see exactly how we stand with respect to them. It has been too freely taken for granted that the capital expended upon them is so much dead weight attached to the live vessel of mining, and that weight was sufficient, or calculated, to drag down the whole mining system. But on looking further into the matter, and weighing every fact fairly, it does not seem at all necessary to conclude that such is really the case. It must be argued that every mine, whether progressive or dividend, must at first have required a certain expenditure to win the metals, erect machinery, and bring it into a profit; and since a mine could not become profitable of itself, if we take for our guidance a great number of dividend mines, and find they cost, on an average, a certain amount, and afterwards give certain profits; and knowing that they could not have paid these profits without this expenditure, we may fairly argue that to bring the same number of other mines into a similar state, it would take a similar outlay. Now, the dividend mines, taken altogether, have cost the country 22,300*l.* each, while the non-dividend mines have only cost 14,682*l.* each; and, notwithstanding the fair complement of capital has not been supplied to them, and they could not have had a fair trial, they have become a medium by which reproach has been cast upon British mining altogether. An impartial reviewer of the state of the mines would certainly decide that as much money should be expended on the average on the non-dividend mines as on the average of the dividend mines, before the non-dividend mines should be condemned as valueless, or be made the vehicle of unsound deduction. It may be said there is no exact analogy between the two, but, on the other hand, there is no analogy to prove that these mines ought to come into a dividend state for a less sum respectively than has been expended upon the dividend mines, taken one with another. We fear, for want of research on this head, some injustice has been done to a class of men whose especial sin is not the non-subscription of the 2½ millions necessary to complete the capital of the progressive mines, and we may go further, and state that the expenditure of the 4½ millions to carry the non-dividend mines to the present state has been principally accomplished through their exertions: a most creditable monument of their efforts. We mean the mining brokers. Now, if the completion of this capital (say) to the 7 millions were attended with a corresponding result with that of the completion of the capital of the dividend mines, the investors would have reason to rejoice, for they would reap a harvest of 25 millions of money in the same average period that the dividend mines have taken to pay up their profits, which we will assume to be 25 years, affording an issue equal to 14 per cent. per annum interest upon the outlay. But as the mines would be worth something after the time given expired, and if we take that something as half the whole dividends, the whole interest upon the outlay would be upwards of 20 per cent. per annum, reasoning, from analogy, there is only 2½ millions more required to produce this happy result, with even a more joyful result for the promoters of this desirable end, for they would infallably, and for ever, lose their dubious fame thereafter—be designated the blessed brokers. What a change for them.

About great capitals other suggestions occur. There is now being expended two millions of money upon the Atlantic cable. We have seen how courageously, failure after failure, the public have returned to the charge, and evidently will not give up the attack until the work is completely accomplished. Although there will be much grumbling, no doubt the capital for the thorough trial of the progressive mines will eventually be found, and such of them as are capable of profit will certainly be added to the Dividend List. The cable will be a great benefit to mankind. It will enable one hemisphere to flash intelligence of the most exciting and valuable kind to the other; it will enable merchants to trade with a foreknowledge of events that, by the nature of things, was impossible before. It will stimulate the cotton trade, as well as other branches of industry;—and would not great benefits occur to us all if the progressive mines could be brought into profit? There are 320 of them; if each could be brought to employ 100 people, there would be 32,000 solely provided with work by them; and supposing each person would earn 36*l.* per year, there would be food for the people to the extent of upwards of a million a year. In our calculations as to capitalists, we assumed that the shareholders' mines benefit to the extent of a million sterling a year; so that by completing the outlay upon these now dividend mines, according to the evidence of statistics, the whole nation would benefit by these hitherto ill-omened properties to the extent of two millions per year.

## ORNAMENTAL IRON FOUNDING.

### SARACEN FOUNDRY, GLASGOW.

This, in many respects model foundry, is situated in Washington-street, Glasgow, and occupies about two acres of land. The firm are architectural and sanitary engineers, and employ between 500 and 600 hands. It has been established 14 years, and is entirely the result of the fine taste and practical ability of the managing partner—Mr. Walter Macfarlane. A worker in the precious metals before turning his attention to iron founding, he may be said to have almost imparted to cast-iron, by his artistic genius, new and plastic qualities, and with it he breaks the dull ridge sky-line of a mansion into graceful festoons, and gives to the sombre chimney-stack the appearance of a pointed minaret.

The front buildings in which the works are carried on are constructed in the modernised Venetian style of architecture—after a thought of Mr. Macfarlane's own; and were it not for the *sough* and roll of ponderous machinery all around, this workshop of Vulcan might be mistaken for a seat of the Doge of Venice. The street fracade is very imposing, and the pinnacled ridges and fretted eaves and ornamented exterior impart a grandeur and noticeable uniqueness to the structure. The sanitary arrangements are very complete, and the care of the copartnery over their men is as marked as it is well appreciated. The counting-house and warerooms are to the front, and the working hives are situated to the north and west. On entering the warehouses, the fine arrangement and order is at once discernible; the passages are as disencumbered as an avenue, and every description of goods is in its own proper place. Here the visitor is shown specimens of the various descriptions of castings for which the Saracen Foundry has become famous, from the plainest of rain gutter pipes worth a few shillings per cwt., to the elaborately-finished castings at 6*l.* per cwt. It requires a somewhat acute appreciation of the beautiful to render the gutters on the house-top a subject of art; and here will be seen how admirably Mr. Macfarlane has succeeded, with his cast-iron foliations and tracery, in accomplishing this object. The roans are also contrived so as to form vertical bands of moulding running from the eaves to the pavement, and their inosculation is covered by ornate heads, designed for the style of building they are intended to occupy. In fact, one leaves these warerooms impressed with the thought that cast-iron has become endued with new and facile qualities. The principal goods, exclusive of the ordinary architectural castings, are weather-vanes, bannerets, crosses, and finials, in elegant and graceful designs; balconies and verandahs rich and chaste in their execution, drinking fountains magnificently ornate, cresting, ridging, and other house-top ornaments in open work resembling embroidery. Their designs for cast-iron gates are—in numerous instances—very grand, and specimens of their lamp pillars may be seen in the two constructed for the Metropolitan Board of Works, London, at a cost of about 300*l.* each. Their sanitary goods are exclusively their own, and are, perhaps, the most perfect yet devised for sanitary purposes. Indeed, the firm are the largest sanitary engineers in the world. These goods are all manufactured from "original" designs, under the protection of several hundreds of registrations and seven patents, which affects them at different stages of their manufacture.

Passing from the outer to the inner court, one waits for a moment at the blast-furnace, where the "pigs" are broken and thrown in to melt. A cooking room fitted up for the comfort of those who are not disposed to leave the work at meal times is on the left, and before us is the door leading into the great founding room, where hundreds are busy at work. In its arrangement it is as orderly as a jeweller's shop, is excellently ventilated, and is all but free of the choking smoke peculiar to foundries conducted in the old style. This is attributable, I was informed, to the fact that no stoves are required for drying the green sand cores at this establishment, a patented invention enabling them to dispense with their unsanitary use. After the castings are removed from their moulds they are handed to the dressers, and from thence they are passed to the testers, and on their standing the test they are—after pointing—received into the warehouses. To the north of the foundry is a fitting-shop, where I found workmen engaged in building an elaborately ornamented verandah, 80 feet long by 26 feet high, for some European Nabob, whose life was doomed to be spent

"Far away, where the orange blows,
And the fire-flies glance through the myrtle boughs."

It consisted of a series of beautiful iron castings, finished as if they had been bronze or brass; and in the same house we noticed a massive piece of railwork for a banking-house, harmoniously characteristic.

After a visit to the blacksmith's shop, at the extreme north end of the works, where every anvil was vocal with the melody of busy industry, I crossed to the pattern loft, which consists of four long flats, each 150 feet. Pattern making, as not a few of your readers will know, is of a rather intricate nature; and when it is stated that patterns are formed of stucco, wood (carved or cut), and tin (chased or carved), &c., an idea will be formed of the exactness which is practised at these works, and will account for the sharpness and delicacy of their finer castings.

The firm plume themselves on the originality of their designs—all their designs are *original*—and on the elegance, adaptation, and durability of their workmanship. I may add that they are contractors, by special appointment, to Her Majesty's War Department, and at the International Exhibition of 1862 the firm—Walter Macfarlane and Co.—was honoured with a prize medal. They have an office in London (38, Bedford-street, Strand, W.C.), where specimens of their ingenious handicraft may be seen.

Such is an outline of this, in many respects, unique foundry and its products, and before leaving it may be as well to state that the copartnery take a lively interest in everything likely to contribute to the harmony and good of those in their employ. There is an intellectual improvement society in connection with the works. They have also an annual excursion, an assembly, and an industrial exhibition, to all of which the employers contribute liberally. By this means the leisure hours of the workmen are actively but beneficially engaged, and they are thus kept free of that mischief which "Satan ever finds for idle hands to do."

## REPORT FROM SCOTLAND.

GLASGOW, SEPT. 6.—The shipments of PIG-IRON from the Scotch ports for the week ending Sept. 4 were 13,932 tons, against 14,379 tons last year; total since January 1, 469,468 tons; increase till date 20,547 tons. The market has again been very animated since this day week, both warrant and shipping iron being in great request; both speculators and consumers showing some anxiety to get into stock, from the fact that both makers' stock and iron in store continue to decrease. A very extensive business has been done daily since this day week at advancing prices. To-day over 10,000 tons were sold, at from 56s. 5d. to 56s. 9d. cash, 56s. 8d. to 56s. 10d. one month, 57s. 1½d. to 57s. 4½d. three months, closing with numerous buyers at the top prices. BAR IRON is unchanged in price, but steady: there is not quite so much enquiry for shipment, and makers are working off shipping and warehousing orders. Shipbuilding iron is in fair request, but prices are rather easier. North of England makers—who have not been sellers in this market for some time—are quoting plates delivered in the Clyde rather under the prices current here. The full quotations are—First quality common bars, 7*l.* 5s. to 7*l.* 15s.; second ditto, 7*l.* 5s. to 7*l.* 15s.; nail-rod, 8*l.* to 8*l.* 5s.; angle iron, 7*l.* 15s. to 9*l.* 10s.; plates, 9*l.* to 11*l.*, all f.o.b. here, less usual discount. In CAST-IRON, pipes are in unprecedented demand, and Scotch firms have more orders in hand than they can execute; notwithstanding that makers have their own prices, pipes cannot be had. The other branches of iron founding are very busy, and orders are difficult to be got through. COALS are in great demand, and the shipments for last week are, perhaps, without a parallel, the shipments being 36,000 tons, against barely 24,000 tons the same week last year. For the last few weeks colliers have been urging an advance of 6d. per day to their wages, and there is every likelihood that the advance will be conceded, as the stocks of coal are very low, and men are not plenty.

To-day, the Caledonian Railway Company have declared a dividend of 6¾ per cent. on the ordinary stock of the company, after making arrangement for payment of the preference shares.

The Clyde Trust met yesterday, when it was shown that the gross revenue for the past year amounted to 121,587*l.*, being an increase of 206*l.* The expenditure amounted to 101,627*l.*, leaving a surplus of 19,960*l.* The total debt due by the Trust on June 30, 1865, was 1,422,379*l.* 1s. 3*d.*

The Great Northern Mining Company of Ireland (Limited) held a meeting here on Thursday, when a statement of their accounts was submitted, and reports by an engineer and the Chairman of the directors. The Chairman (Major Graham, of Capellie,) congratulated the meeting on the state of the mines, which he had visited within ten days, and assured the shareholders that a dividend was certain to be declared at no distant date.

The annual inspection of the machinery of the Rosehall Colliery, Coatbridge, took place last week, and a number of prizes—in sums of money varying from two guineas to ten shillings—were distributed amongst the successful engine-keepers. The result of these competitive examinations on the enginemen is such, that the judges had great difficulty in deciding who should be excluded—the machinery at all the pits being in admirable condition. Perhaps a hint of this kind might not be lost on the masters of either coal or ironstone pits, as the small sum distributed in prizes is more than repaid by the extra care and attention bestowed by the engineman on all the machinery under his charge, and the rivalry has certainly a very healthful effect.

The estate of Greenmont, in Fifeshire, was sold in Edinburgh last week to Mr. David Langdale, mining engineer, for 2500*l.* At the same time and place, the estate of Dunearn, Fifeshire, was sold to Mr. John Kerr, engineer, Dundee, for 7500*l.*

It has transpired that Messrs. Caird and Company, of Greenock, have concluded a contract with the Norddeutscher Lloyd, Bremen, for two steam-ships, similar to the one now in course of being finished, and at present lying in the East India harbour there. They will be about 2100 tons each.

Our system of inland telegraphy is extending, and this week various stations in the West Highlands have been put in communication with this city. These include Dunoon, Rothesay, Campbeltown, and Inverary. On Monday these lines were opened by an exchange of congratulatory messages between the Chairman of the Universal Private Telegraph Company in Glasgow and the Duke of Argyll in Inverary. The contractors and engineers are Messrs. Reid Brothers, of London. Further extensions of these lines will immediately put us in communication with Ardrishaig, at the mouth of the Crinan Canal, and that picturesque rendezvous for tourists intending to "do" the West Highlands—Oban. These lines will, undoubtedly, prove a great public convenience, although they may possibly recall many a tourist to business as he is about to start to view the weird scenery of "dark Glencoe," or the colonnaded marvels of Staffa. Still we may well indorse the inaugural wish of the Duke of Argyll, and "trust the line will be successful and remunerative."

## REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

SEPT. 7.—The demand for manufactured Iron continues tolerably good, and the works are, as a rule, in full employment. The fine weather of the last week, which has enabled the fields to be almost entirely cleared of grain, produced a better feeling in the country; and should the hopes formed with regard to America be gradually realised, the iron trade will, no doubt, soon be very active. The Hardware Trades of South Staffordshire are steadily improving, the demand for both home and foreign markets showing a decided increase. The prospects of the general trade are greatly improved by the important intelligence from Bombay, contained in the *Times* of to-day, in which it is stated that "It has been decided by Government that the principal lines of railway in India are to be double lines, and that the Great Indian Peninsular Railway, as far as Jubbulpore, will forthwith be constructed in that way."

The great subject of interest at the present moment in South Staffordshire is the visit of the British Association to Birmingham, which is to include visits to many interesting points in the South Staffordshire coal field. The great 10-yard seam of coal of the district, the extraordinary faults by which the field is divided, the interesting geological features presented by the three "Silurian islets" of the Beacon, the Wren's Nest Hill, and Dudley Castle Hill, the caverns there, the peculiar basaltic formations near Walsall, and the great beds yet to be worked on that interesting plateau. Cannock Chase affords abundant objects of interest for the geological enquirer. There are Lichfield Cathedral and Burton Breweries; the geology of Burton, and the great question of the qualities of the water which make its beer so superior, and the limit to its supply, will afford subjects for consideration. Mr. Jukes is to lecture on the subject of the extension of coal under the Permians, which Mr. Henry Johnson, of Dudley, and others, discussed, and which would lengthen, if the theory be established, by centuries the probable duration of our coal mines. I shall descant upon these various matters from time to time. The President's able address is rather wanting in local interest, but it has apparently not lost the aspect of being a good record of an itinerant society's operations.

## REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

SEPT. 7.—The Iron Trade continues to improve, and an increased feeling of confidence is felt, not only by the manufacturer but the merchant, that a good trade will be done throughout the winter and spring. Some of the houses are already so full of orders that they will not accept any for immediate execution. From America orders are coming in more freely for all descriptions of iron. The cutlery trade is very active, especially for tools. There is an increase demand for rails and railway ironwork at Sheffield, particularly for springs and wheels. The founders at Rotherham are busy in consequence of the activity in the building trades. There is a dulness pervading the armour-plate trade, and the orders from the Government are very few. Several of the continental Governments are ordering largely of steel shot and shell, which is largely manufactured at Sheffield. The Coal Trade is brisk throughout the district, and the pits are working full time. There is a good demand for hard coal for the London market, and prices are rather on the advance. It seems certain that as the winter advances coals will be much dearer than at the similar period last year. Nothing can be more absurd than the gathering of the South Yorkshire colliers to promote the interests of the Union. It would appear that a certain staff of men are regularly employed to hold meetings and make speeches, the effect of which is only to create dissatisfaction among the men with their position.

The local share markets are active, and there is more business doing in railway, gas, and water stocks. The returns generally are good, but there has been a wonderful falling off in excursion traffic on the principal lines.

## REPORT FROM MONMOUTH AND SOUTH WALES.

SEPT. 7.—The Iron Trade retains the firmness referred to in last week's report, and makers are gradually showing more confidence in the future. The causes of this improved feeling are the increased enquiry from New York, the likelihood of a speedy revival of the trade with the East, and the home requirements are larger. South Wales supplies Staffordshire with a large quantity of pig and puddled iron, and when trade is in a satisfactory state in the black country, as is the case just at present, then South Wales is proportionately benefited, irrespective of any increase in the foreign demand. Buyers of pigs are purchasing with less reserve than usual, and sellers are decidedly firm as to prices. Puddled remains without change, stocks being low, and the demand good. The shipments from the local ports to America consist almost exclusively of rails, and there is no doubt that the repairs of the railways torn up and otherwise damaged during the progress of the war will necessitate a large supply of railway iron from this country before the lines are again in working order. The following are the present quotations at the works:—Rails, 7*l.* to 7*l.* 5s.; bars, 7*l.* to 7*l.* to 7*l.* 2s. 6d. The tin-plate makers are selling more freely than for a long time, and within the last fortnight large quantities have left the district for Liverpool, Manchester, &c. If the sales continue, the stocks at the works will be considerably reduced before long. Returning activity characterises the Steam Coal Trade, and the exports have now arrived at a point which keeps the collieries fairly employed. Buyers of house coal are commencing to prepare against winter, and the local sale has moved a little. For coke and patent fuel the enquiry remains about the same.

The future of the coal trade in Monmouthshire is a subject which engages some considerable attention just at present. Hitherto the coal worked in the county has been almost exclusively confined to the upper measures known as the Mynyddyslwyn, Tillery, &c., and in consequence of these seams, more especially the Mynyddyslwyn, being nearly worked out in some localities, an impression has gained ground that the coal workings of the county will not last for many more years. This is a great mistake, which is exceedingly easy of demonstration, and the most super-

ficial knowledge of the mineral basin of the district is at once sufficient to convince one of the incorrectness of the impression referred to. Mr. Crawshay Bailey, the wealthy ironmaster, remarked in a recent speech that the coal seams of the county had only been just "scratched," and that an immense quantity of coal was left behind, which in time would, no doubt, be again worked. As a proof of this, it may be mentioned that in the neighbourhood of Blackwood old levels have, within the last three or four years, been profitably reworked, after having been abandoned for years before. Independent, however, of the unworked coal of the upper seams, the lower measures have not been, comparatively speaking, touched, and will yield thousands of millions of tons of the finest quality ever known. The lower measures are identical with the celebrated Aberdare steam, and, according to Mr. Thos. Brown, late of Ebbw Vale, and other well-known authorities, the evaporative power of Monmouthshire steam has been proved to be superior to Aberdare. The only drawback as regards the lower measures is, that the depth to sink will on an average be 500 to 700 yards; but this, after all, is only a question of cost, for there are collieries in the kingdom deeper than this. An application has been made to Mr. Bailey to sink to the lower measures on his property at Aberbeeg, and as soon as the necessary dock and railway accommodation is afforded at Newport, there is no doubt that this example will be followed in other localities in the county. From these circumstances it is clear that there is a great future in store for the Monmouthshire coal trade, and that when Aberdare will be worked out, the lower veins of this county will still be capable of yielding an almost unlimited supply, which will be sufficient to meet the requirements of generations to come. In conclusion, it may be added that these seams are calculated to have two thousand three hundred millions of tons of workable coal.

It is satisfactory to report that the turn-out at Nantmelin Colliery, Aberdare, is at an end, and the men are working with their usual regularity.

The habitual cruelty to animals observable in collieries will now, probably, be, to some extent, lessened, the Royal Society for the Prevention of Cruelty to Animals having, very properly, taken up the matter. The Rhymney Iron Company is that upon which a commencement has been made, and the Stipendiary has fined Richard Beddlington, the acting colliery manager, 10*l.* 10*s.* and costs; Daniel Wiltshire, who, certainly not very creditably, fills the post of veterinary surgeon of the colliery, 3*l.* and costs; and Henry Moses, the master haulier, the costs of summonses. These very mitigated penalties were inflicted in consequence of its being the first information laid, but others will not escape so easily. The 36 horses working at Tir Phil level were all in a condition which, although tolerated in a colliery on the ground that humanity is a too expensive a luxury to be indulged in, would scarcely be believed outside. All the animals were in a similar state of suffering. The wounds were nearly all ulcers of long standing, scrubbed and irritated by the harness every time the animals moved, and the extent of the mutilations on one poor creature measured respectively 5 in. × 4 in., 3¾ in. × 3½ in., 4 in. × 4 in., 3½ in. × 3¼ in., and 2½ × 2 in. Two eminent veterinary surgeons in the Court stated that in all their professional experience they had never witnessed such brutality, yet it is said that in collieries in all districts Richard Bedlington could find many rivals.

The arrivals at Swansea include—the Herradura, from Tocopilla, with 332 tons of copper ore, for H. Bath and Sons; and 322 tons of copper ore and 88 tons of copper regulus, for T. Elford; Deerhound, from Caldera, with 456 tons of copper ore, 136 tons of copper regulus, and 127 tons of silver ore, for Richardson and Co. Annie Fisher, from Totoralillo, with 140 tons of unwrought copper in bars and 320 tons of copper regulus, for H. Bath and Sons. Philip, from Wallaroo, with 193 tons of copper ore, for Richardson and Co. Mary Seymour, from Carisforte, with 257 tons of lead ore, for H. Bath and Sons.

At the Bristol Bankruptcy Court, on Monday, the adjourned last examination and discharge sitting was held in *re* G. W. Laverick, late of Merthyr Tydvil, colliery proprietor. Mr. Press, for the assignees, said there was no opposition, and the bankrupt passed, and was granted an order of discharge.

Gratifying Testimonial to Mr. F. Levick and Family.—When a few weeks ago it was announced that Messrs. Levick and Simpson were in difficulties, the workmen employed at Blaina, Cwmcelyn, and Coalbrookdale works held a meeting with a view of conveying to Mr. Levick and family an expression of their respect and sympathy under such trying circumstances. It was then determined to present testimonials to several members of the family, and a committee having been appointed to carry out the arrangements, Monday last was fixed as the day of presentation. Thousands were present on the occasion, and the testimonials consisted of a costly time-piece, of Algerian onyx, to Mr. F. Levick, sen., a silver-mounted hunting whip to Mr. F. Levick, jun., and an elegant dressing case to Mrs. F. Levick, jun. On the clock was engraven, in English and Welsh, the following inscription:—"Presented to F. Levick, Esq., by the workmen employed at the Cwmcelyn, Blaina, and Coalbrookdale ironworks as a mark of their esteem towards him as manager and proprietor of these works for the past 20 years, August, 1865." Mr. Levick, in a lengthy speech, acknowledged this indication of good will on the part of the workmen, and dwelt upon the relations and mutual dependence of employers and employed. It is worthy of remark that the idea of the presentation originated with, and was carried out solely by, the workmen, none of the agents being permitted to subscribe.

Effect of Strikes upon the Iron Trade.—The facility which the continued restlessness of workmen affords to foreign manufacturers to compete with us, even at the very gates of our ironworks, may be judged of from the following extracts from a circular which has been forwarded to all the principal consumers of iron in this country by one of the largest firms of iron-dealers in the City of London. They state that the employment of foreign manufactured iron in English engineering establishments is no longer unusual. They have delivered special descriptions, even into the very centre of our iron districts, and have also profitably supplied from foreign sources many castings that would derange and interfere with the appliances of any English ironfounder, and are made here only at a greatly increased price. A tender for locomotive-engines having lately been accepted by a large English railway from an eminent French firm, it has been resolved, finding no prejudice existing amongst English companies or engineers, honourably to bid for a portion of the large orders given out in England. As manufacturers of rails, locomotives, marine-engines, for ocean and river navigation, and other machinery, and of wrought-iron bridges, of the boldest construction, the works will be well known by reputation, as taking first rank in France, Italy, Spain, and Russia. Cheap and expeditious railway and steam communication permit deliveries of goods for transshipment at all the principal English ports, where direct shipment from Marseilles or Havre offers no advantage in freight. They trust, therefore, to be favoured with the opportunity, as occasions arise, to tender, on behalf of the firm in question, for the supply of any of their larger requirements. They can promise all the security that scientific and mechanical skill, powerful machinery, a well-organised system of labour, uniformity of quality, and the latest improvements in machinery and tools (from the first English workshops) can afford; and for buyers' security the usual clauses in English specifications will be accepted and adhered to. Without underrating the great capacity and power of the various branches of the English iron trade, it is obvious to everyone that by the operation of "strikes" and "lock-outs" alone, the great natural advantages of the English ironmasters have been considerably curtailed, and the carrying out of important undertakings sometimes jeopardised, and even altogether prevented.

Cleveland Iron.—In shipments a good deal of business has been done in all kinds of iron, and the mills and furnaces continue actively employed. Some of the new furnaces belonging to the Stockton Malleable Iron Company are now at work, and those in the course of finishing will be at work shortly. The extensive iron shipbuilding establishment of Messrs. Richardson, Duck, and Co., South Stockton, and of Messrs. Denton, Gray, and Co., Hartlepool, are, we learn, about to be associated with the old-established engine manufactory carried on under the style of T. Richardson and Sons, at Hartlepool, under the care of a new limited liability company. Shipments out of warrant during the week have been rather heavy, but the stock taken in not so great.

State of the Blast-Furnaces of the District.

| Place and Owners. | In. | Out. | Total. |
|---|---|---|---|
| Eston—Bolckow, Vaughan, and Co. (Limited) | 9 | — | 9 |
| " Clay Lane Company | 6 | — | 6 |
| " South Bank Company | 4 | 2 | 6 |
| Cargo Fleet—Jones, Dunning, and Co. | 3 | — | 3 |
| " Cochrane and Co. | 4 | — | 4 |
| " Gilkes, Wilson, Pease, and Co. | 5 | 2 | 7 |
| Middlesbrough—Bolckow, Vaughan, and Co. (L.) | 4 | — | 4 |
| " Hopkins and Co. (Limited) | 2 | — | 2 |
| " Hopkins, Lloyd, and Co. | 2 | — | 2 |
| Port Clarence—Bell Brothers | 6 | — | 6 |
| Norton—Warner, Lucas, and Barrett | 3 | — | 3 |
| Stockton—Holdsworth and Co. | 3 | — | 3 |
| Ferryhill—Rosedale Iron Company (Limited) | 6 | — | 6 |
| Newport—B. Samuelson | 3 | — | 3 |
| Thornaby—W. Whitwell and Co. | 3 | — | 3 |
| Darlington—South Durham Company | 3 | — | 3 |
| Witton Park—Bolckow, Vaughan, and Co. (L.) | 4 | — | 4 |
| Stanhope—Weardale Iron Company (Limited) | 0 | 1 | 1 |
| Towlaw—Weardale Iron Company (Limited) | 4 | 1 | 5 |
| Consett—Derwent Iron Company (Limited) | 6 | 12 | 18 |
| Fighting Cocks—Middleton Iron Company (L.) | 2 | — | 2 |
| Total | 82 | 18 | 100 |

Statement of Furnaces Building.

| | |
|---|---|
| Middlesbrough—Hopkins, Lloyd, and Co. | 2 nearly ready. |
| Eston—Bolckow and Vaughan | 2 nearly completed. |
| Ferryhill—Rosedale Iron Company (Limited) | 1 nearly ready. |
| Eston—South Bank Company | 3 half completed. |
| Middlesbrough—Stevenson, Jaques, and Co. | 3 nearly ready. |
| Newport—Samuelson | 1 nearly ready. |
| Cargo Fleet—Swan, Strauhenzee, and Co. | 2 half completed. |
| Carlton—Bastow and Co. | 2 nearly ready. |

—*Stockton and Hartlepool Mercury.*

Ventilation.—Some interesting experiments have been made at Cherbourg, in the presence of a Government Commission, on a new system of facilitating respiration in the noxious atmosphere of wells and mines. The inventor's name is Galibert. One form of this apparatus is a reservoir containing 110 litres of atmospheric air, to which two tubes were adapted. These tubes are fixed in a piece of horn, which is placed between the teeth. The operator straps the reservoir on his back, stops his nostrils with an instrument provided for the purpose, protects his eyes with closely fitting spectacles, and breathes as slowly and quietly as possible through two tubes. There is another variety of the apparatus, in which the reservoir is dispensed with, and the ends of the tubes are left in the open air, but with this no exploration deeper than fifteen or twenty metres can be made. With the other the operator may remain with impunity, even in the most deadly vapours, for twenty or twenty-five minutes. The experiments were pronounced entirely successful.

## THE BRITISH ASSOCIATION AT BIRMINGHAM.

For the third time the British Association for the Advancement of Science holds its annual meeting—the thirty-fifth—in Birmingham, the busy central city of England. The President of the year—succeeding Sir Charles Lyell—is Mr. John Phillips, F.R.S., F.G.S., Professor of Geology in the University of Oxford. The vice-presidents are—the Earl of Lichfield, the Earl of Dudley, Lord Leigh, Lord Lyttelton, Lord Wrottesley, the Bishop of Worcester, the Right Hon. C. B. Adderley, M.P., Mr. W. Scholefield, M.P., Mr. James T. Cheme, Mr. A. Follet Osler, F.R.S., and the Rev. Charles Evans. The general secretaries are—Mr. William Hopkins, M.A., F.R.S., St. Peter's College, Cambridge; and Mr. Francis Galton, M.A., F.R.S., F.G.S.; while the arduous duties of assistant general secretary are performed with perfect courtesy and efficiency by Mr. George Griffith, M.A., Deputy Professor of Experimental Philosophy in the University of Oxford. No less assiduous and gracious in the performance of their functions are the local secretaries—the Rev. G. D. Boyle, M.A., Prof. J. H. Chamberlain, F.R.I., B.A., and Mr. William Matthews, jun., M.A., F.G.S. The business of the meeting is conducted in seven sections. "Mathematical and Physical Science," is presided over by Mr. W. Spottiswoode, M.A., F.R.S., and the secretaries are Prof. J. T. Smith, M.A., F.R.S.; Mr. J. M. Wilson; Mr. Fleming Jenkin, C.E., F.R.S.; and Mr. G. S. Mathews. The president of the section of "Chemical Science" is Prof. W. A. Miller, M.D., F.R.S., and the secretaries are Mr. A. Vernon Harcourt, F.C.S; Prof. Wanklyn, F.C.S.; Mr. H. Adkins; and Mr. A. Winckler Wills. Over the section of "Geology," the veteran leader of that science, Sir R. I. Murchison, K.C.B., F.R.S., presides, and his aides-de-camp are Mr. H. Sorby, F.R.S.; Mr. W. Pengelley, F.R.S; Rev. P. Brodie, F.G.S.; and Mr. J. Jones. The arbiter of the "Economic and Statistical" section is Lord Stanley, M.P., F.R.S.; and his secretaries are Mr. Frederick Purdy (of the Board of Trade), Mr. E. Macrory, Mr. J. D. Goodman, and Mr. G. J. Johnson; while in that of "Mechanical Science," the President is Sir William Armstrong, C.B., F.R.S.; and the secretaries, Mr. P. Le Neve Foster, Prof. Pole, F.R.S., Mr. W. P. Marshall, Mr. Walter May, and Mr. Henry Lea. These names, doubtless, speak in all instances with no uncertain sound to the ear of the scientific world, while many of them are familiar to the public as masters in their own special department of science; and the combination may well be taken as a guarantee of efficiency, diligence, and zeal in the promotion of the objects of the association.

Mechanical Science.—Sir W. Armstrong, in opening this section, said it was fortunate in having the annual meeting in Birmingham, for in no other town in the kingdom were mechanical and manufacturing processes carried on in greater variety, and the members must profit by the opportunity afforded of witnessing the manifold transactions of industry, and of discussing amongst themselves the various objects brought before them. The papers to be read embraced matters of great interest and importance, and would lead to much instructive discussion. Nothing could be more surprising than the recent rapid and still accelerating progress of mechanical science, and this was attributable to the facilities afforded on these occasions for a more general and easy interchange of experience and ideas. Amongst the papers, he noticed one by Mr. Robinson, of Manchester, on "Gifford's Injector," and he anticipated that Mr. Robinson's experience would enable him to throw additional light on this paradoxical machine, and if any obscurity remained he hoped it would be cleared up. The subject of hewing coal by machinery would be introduced by Mr. Levick; it was an important and successful step in mechanical science accomplished during the year. Although this might tend to deprive persons of employment, whatever tended to economise human labour in the dark and dangerous recesses of the coal mines must be a benefit to the community, and the labour might be diverted in its channels by the introduction of machinery, but the aggregate amount of employment would not suffer. He regretted that there was no paper on the improvement in puddling machinery. The paper from Mr. Bessemer upon steel could not fail to be highly valued by the section. The extending sphere of this useful material had attracted special attention to the question of economy in its production, and no one had contributed more to that end than Mr. Bessemer. The various papers that would be read on deep sea telegraphic cables would prove peculiarly acceptable at this time, when we were engaged in a grand attempt to effect telegraphic communication between Europe and America. Where were there more discouraging failures in an undertaking, and never were failures encountered with more indomitable courage and perseverance. The paper by Mr. Cox, on Mr. Siemen's regenerative furnace, would bring forward a subject, the importance of which could not be over-estimated. Few persons were aware of the waste of heat which took place in all furnaces where it was necessary to communicate a high degree of heat to any material. The regenerative furnace arrested a large proportion of the fugitive heat, and added it to the gaseous fuel which supported the combustion of the furnace. Wastefulness was to be deprecated in mechanical processes, but considering how much the greatness of this country depended on the resources of mineral fuel, and with what prodigality we were drawing upon those resources, any wholesale wastefulness in fuel demanded especial reprobation, and rendered the introduction of more economical methods of consumption a matter of national importance. The regenerative gas furnace also prevented smoke. Now, smoke could not be altogether prevented in the case of ordinary steam-boiler furnaces, but he knew of no means yet introduced by which its prevention could be effected in manufacturing furnaces heated by coal. If gas were substituted for coal, and the regenerative principle applied, the nuisance and disfigurement occasioned by smoke could be entirely avoided. But the introduction of gas furnaces on so large a scale must be a work of time, and the system itself would, probably, require improvement and development to render it widely available. He might have extended his observations to the subjects of the other papers to be read, all of which would possess considerable interest, but he felt that little would be gained by such an extension of his comments, and that it would be better for the section at once to proceed to their proper business.

Coal-Cutting Machinery.—Mr. Thomas Levick read a paper on Machinery invented by himself and Mr. Jones for Compressing Air, and its Applicability for working Coal-Cutting and other Underground Machinery. Having explained, with some elaboration, the construction of the engine for compressing the air at the mouth of the pit, the paper explained that the air so compressed was conveyed to the machinery underground in 4-inch cast-iron pipes, carried along the main headings, from which the compressed air was conveyed in 1¼-in. gas piping, connected with the machine in the pit by an India-rubber hose. It then described the cutting-machine to be worked in the pit, the prominent feature of which is a pick, which digs the coal when the engine at the mouth of the pit is in motion. The pick can be worked at any angle at which the coal may lie, and can be easily put to work at any part of the thickness of the coal, whether it might be desirable to "hole" in the bottom or at the top of the measure, or at a parting in the middle, or any other portion of it, by simply shifting the pick to a greater or less distance upon the axis upon which it is keyed. The machine moves forward as the work progresses by means of a hand-wheel, which communicates motion by the bevil wheels to the wheels upon which the machine travels. The paper then proceeded to describe the construction of a self-acting valve applied to the coal-cutting machine, by which all the difficulties hitherto attending the action of hand and foot valves (necessitated by the varying stoke of the pick, according to the disintegration effected) are overcome. Having described an arrangement for steadying the machine, by counteracting the vibration caused by the blows, the paper proceeded to describe the method of working the picks of coal-cutting machines. In cases of bad roof, the machines had been objected to, on account of the space required (between the face of the work and the roof) for back stroke of the pick. Another objection was that the work had to be passed over twice or three times in order to gain the required depth of cut. These objections had been obviated by the machine introduced to notice, by which the stroke of the pick, when making its cut, was from the back of the cut towards the face instead of passing across the road and striking into the face in the direction observed heretofore. By this means, the gob or supports to the roof could be brought close up to the road. The concussion of the blow was reduced, and about 6 inches of the coal had not to be cut, it being forced out as the pick approached the face.—Mr. Levick exhibited a working model of the new machine.—In answer to questions, he said the machine was intended for coal mines—not for ordinary tunnelling; but it would be suitable for digging out any material as hard as the iron picks could be made to stand. The machine he had described had been worked on large lumps of Bath stone. On the subject of cost, he thought the machine would pay, as it could do as much work in an hour as a man could do in a day.—The Chairman said the subject was one of the greatest possible importance. He knew of no mechanical desideratum that was of greater urgency than the contrivance of an efficient method for effecting those processes which had been adverted to. It was desirable not only as a means of economising labour, but in economising the difficulties of labour which in its nature was peculiarly hazardous; and above all, it was to be desired as a means of saving waste in the disintegration of coal. (Hear, hear.)

Manufacture of Torbite.—A paper, "On Torbite (a new preparation of peat) and its Uses," was read by Mr. Henry Lea, in the absence of the author, Mr. D. K. Clark. Its object was to describe the system pursued at Horwich, near Bolton, for the manufacture of torbite and charcoal from peat. In view of the probable early exhaustion of our coal fields, the question of the manufacture of good and cheap fuel from peat was one of the greatest importance. Upwards of 86 millions of tons of coal were consumed in one year, 1863; and, allowing for a constant annual increase of 2 millions of tons, it was estimated that the coal measures of the United Kingdom would be exhausted in less than 100 years. The difficulties hitherto in treating peat for the manufacture of fuel were shown to consist chiefly in the difficulty of separating, at a moderate cost, the excessive proportion of water held in suspension by peat in its natural condition, in consequence of the uncertainty of the climate and the great amount of hand labour employed, and in the impossibility of efficiently condensing and solidifying peat by mechanical compression, which has been the agency relied on for that object. The author then explained that, according to the Horwich system of treatment, compression by mechanical force in any manner is studiously avoided; and that, on the contrary, advantage has been taken of the natural property of peat, suitably prepared, of contracting as it parts with its moisture, and becoming perfectly solid and cohesive. To separate the water the peat travels upon endless bands, within a close chamber, exposed to currents of heated air, by which the moisture is effectually extracted; the blocks of peat being turned up on all sides in succession, so as to be equally and regularly dried, and emerging dry, hard, and dense. To the peat substance thus prepared the name of "torbite" has been given, and it was stated that it could be delivered at a cost of from 10*s.* to 12*s.* per ton. In the subsequent stage, the conversion of the torbite into charcoal, it was pointed out that the fatty and other matters disengaged during the charring process were valuable commercial products, the sale of which nearly covered the cost of the whole process. Some experiments were described, proving the suitability of torbite and its preparations for generating steam and smelting iron ore, and in the other stages of the manufacture of iron; for all of which it was proved to be eminently adapted, and to be superior to coal. It was contended, therefore, that the problem of the probable utilisation of peat had at last been solved. It was stated, in conclusion, that the bogs of Great Britain and Ireland cover an area exceeding 5,000,000 of acres, the average depth of which might be taken at 20 feet; and that the benefits of the utilisation of peat on the large scale, particularly for Ireland, could scarcely be over-estimated from an industrial point of view.—Mr. William Smith reviewed the paper at some length, contending that the process of producing torbite was so expensive as to make it impracticable.—Mr. Charles Vignoles, F.R.S., said he had had great experience in various countries, in connection with the proposed conversion of bogs into fuel. He gave the results of his experience at some length, concluding with the remark that they were such that he could not recommend the project submitted in the paper.—Dr. Paul described experiments which he had taken part in, showing that torbite could not be produced at a price at which it could be used. The subject was far from being a new one, as it would seem to be from the paper read.—Mr. Hahn Danchell, who appeared as the representative of Mr. Clark, the writer of the paper, said his experience in the matter had been different from that of the gentlemen who had spoken. In a simple word, he had found the manufacture of torbite to pay.

Silicium in Iron.—In his paper, Dr. Phipson said it was well known that silicium existed in cast-iron, not only in the free but also in the combined state. Dr. Phipson had been led to examine the subject of silicium in iron from the fact that he found several samples of iron which were reported as yielding very different qualities of Bessemer steel, to be of precisely similar chemical composition, and following up the subject, he came to the conclusion that the difference in the quality of the steel arose, not from differences in the total quantity of silicium, but from the manner in which it occurred, as free or combined. This matter was of great importance, as the author was now enabled to determine, by ascertaining the amount of combined silicium, as to the suitableness of an iron for the manufacture of Bessemer steel, that iron which yielded the smallest quantity of combined silicium being most suitable for this purpose.—Mr. Abel said that had Dr. Phipson been present, he would have been glad to have heard in what manner that gentleman distinguished between combined and uncombined silicium.—Capt. Noble stated that an iron was so deficient in tensile strength as hematite iron, but he had determined that this weakness was not due to the silicium the metal contained.—In reply to a question by Dr. De la Rue, Mr. Bell stated that borax—an element very closely allied to silicium—had not been found in any analysis of iron, and that the character of an iron would vary very much, although precisely similar materials were used in its production.—Dr. Miller suggested the spectroscope should be used, in order to determine the presence of barium, the lines given by this element being very characteristic.

New Rotary Steam-Engine.—Mr. R. W. Thompson, F.R.S., described a new rotary steam-engine, in which the difficulties arising out of the use of the stop or abutment are got rid of, by dispensing with the steam stop entirely; and in which the inconvenience connected with keeping the packing steam-tight is obviated by giving the packing straps the same curvature as the inside of the cylinder, causing them to bear equally and steadily against the steam, as in the packing of an ordinary piston. Mr. Thompson exhibited diagrams and wooden models of the engine. He said, from the experience he had in connection with the new engine, he believed that for many purposes it would supersede the ordinary form of steam-engine. The engine, when manufactured under the same advantages as those under which the common engine was now produced, would be turned out a cost less than half of that of an ordinary engine. Gas exhausting, constructed on this principle, acted with an efficiency exceeding that of any of the machines hitherto in use. One had been in operation at the Edinburgh and Leith Gasworks for some time, and it went with much less power, and discharged a much greater percentage of gas than any of the machines hitherto in use. A few remarks from several members followed the reading of the paper, after which Mr. Thompson received the cordial thanks of the section.

Geology of North Wales.—Mr. George Maur, F.G.S., read a paper "On an Extensive Distribution of Deposits of White Clay and Sands in North Wales, antecedent to the Boulder Clay Drift." In North Wales there is an entire absence of any recognised deposits of an age between that of the lias and the boulder clay; but there exists a series of strata older than the clay, as determined by the evidence of superpositive and mineral characters. These deposits may be described as isolated patches of quickly alternating strata of white sands and light-coloured pipe-clays, occupying pockets in the limestone. The strata are either conformable to the concave form of the cavities, or placed almost vertical. There are various localities where these deposits occur, as near Llandudno, Great Orme's Head, at the back of the Conway mountains, in the neighbourhood of Holywell, Mold, &c. These deposits are all unfossiliferous, but closely resemble the Tertiary beds of Dorsetshire. The various isolated patches doubtless once formed a connected deposit, and their preservation is due to the excavation of cavities in the limestone after the deposition of the strata. The series of geological events implied by the foregoing facts would be—firstly, the deposition of the white clay and sand strata any time since the principal erosion of the mountain limestone, which took place probably during the Permian period. Secondly, the partial excavation of the pockets by watery dissolution of the limestone and the gradual lowering into them of the pre-existing deposits. Thirdly, the erosion of the great mass of the formation not protected in the cavities. Fourthly, a continued excavation and deepening of the cavities after the boulder clay period.

As on previous occasions, we shall give, as opportunity offers, all the information that may be elicited, in papers and discussions, the various excursions and visits, on matters in which our readers are interested.

## MINERS' ASSOCIATION OF DEVON AND CORNWALL.

The annual meeting of the Miners' Association of Devon and Cornwall was held in the committee room of the Polytechnic Hall, Falmouth, on Aug. 31, at which Mr. J. J. Rogers presided.

Mr. C. Fox read the first paper laid before the meeting. It was upon Boring Machines, a subject to which Mr. Fox has on former occasions directed the attention of members, and one which he now said from its importance could not be put aside until boring apparatus were introduced into practice in Cornwall and Devon, unless better prices for their metals allowed them to continue the present method, so costly in money and time, and so injurious to the miner. At the last meeting he had offered some remarks upon Crease's boring machine, and he now had to lay before the meeting some particulars respecting that of Mr. George Low, of Newark. When he saw the latter at work, in 1863, the borer had a self-acting rotatory motion in the hole; but that was now dispensed with, as it had been found that the tool was quickly damaged by it when giving from 400 to 600 strokes per minute. A considerable portion of a tunnel, 6 ft. high and 5 ft. wide, at Roundwood, near Dublin, had been driven by this machine through a hornblende trap, thickly interspersed with quartz veins. The tool bored at an average rate of from four to six minutes for the first 10 or 11 in., and from three to three and a half minutes for the remaining 9 or 10. It only needed to be changed once in the 20-in. hole, in very hard rock, whereas in boring by hand sometimes 24 tools would be used in reaching the same depth. Mr. Low had found that a rapid motion with moderate pressure made more speedy work, and preserved the edge of the borer better, than great pressure and slower action. The forward motion of the machine adapted itself to rapid cutting. At Roundwood, the air was conveyed 90 yards through a pipe, and the average pressure was 85 lbs., the piston being 3⅜ in. diameter. As at the Mont Cenis Tunnel, a separate jet of water had been found to keep the hole more clear than an injection through the hollow of the borer. Mr. Low hoped soon to introduce his machine into Cornwall. Capt. Prentice's tunnelling machine he (Mr. Fox) had seen in a tunnel near Spezzia, in Italy, which it was cutting through limestone rock. It consisted of a large circular disc, 7 ft. 6 in. in diameter, armed on its face with strong steel chisels set into its periphery, and also in radiating lines from its centre; and its massive shaft was connected with a piston worked by steam. Donkey engines were used in connection with it. When he visited the tunnel the machine was idle, in consequence of a breakage; and he believed that an implement which bored holes for blasting would be found more economical than one which, like Capt. Penrice's, worked by breaking down the brust head. Moreover, an accident to the latter stopped the whole of the workings; whereas if a tool of a boring machine broke the cylinder could be taken away. He had often suggested that borers might be worked in mines by small turbines, set in motion by small columns of water from the cisterns in the shaft. This method would be especially applicable to heavy jumpers in a sump. The water might readily be conveyed through gutta percha pipes. This plan, however, would not give that ventilation to the ends which would be afforded by the compressed air-machines, and ventilation would be more needed when holes were bored at a greater rate.

Prof. Hunt next read a paper on "Mining in Cornwall two centuries ago," which had been placed in his hands by the secretary of the Helston class. He observed that it was of the utmost importance to endeavour to preserve all possible information with regard to mining as anciently conducted in Cornwall, and that the present paper contained a considerable amount of matter of high historical value. The communication stated that tin mining had been anciently practised principally in the driest seasons, the workers being at other times engaged in agricultural pursuits. In order to mark the places where the operations had been carried on successfully, it was the custom to plant at such spots bushes of skew or elder, which by their rapid growth prevented all danger of the right position being lost. Where, on the contrary, the results had been unsatisfactory, thorn bushes were employed. [Mr. Hunt remarked hereupon that unfortunately many modern adventurers had had cause to regret the absence of similar friendly admonitions.] The more extensive operations had been carried on by the co-operation of the members of several families, each being accustomed to undertake different branches. A trace of this custom had existed until recent times, in the names indicative of different departments of mine labour which were borne by some families in addition to their surnames. The condition of the ancient miners, it would seem, had been very far from comfortable or satisfactory. In the parish register of Breage occurs a very curious entry, which the writer of the paper was enabled to quote through the courtesy of the Rev. E. M. Pridmore, and which Mr. Hunt stated to be a very remarkable bit of history, inasmuch as it gave the name of the man who first introduced blasting into Cornwall. Modernising the olden spelling, this entry is as follows:—"Thomas Eygley (or Epsley), senior, of Chilchampton parish, of Bath and Wells in Somersetshire, he was the man that brought into Cornwall that rare invention of shooting the rocks, which came here in June, 1689, and he died at the bal and was buried at Breage on the 16th day of December, in the year of our Lord Christ, 1689." In Penrose Silver-Lead Mine, near Helston, which was formerly worked by the Godolphin family, to whose mining operations Carew refers in his "Survey," is a deep adit level, which it has been discovered was driven without the use of powder. The remaining portion of the paper consisted of a description of the discoveries made on resuming operations at an ancient mine at Crenkle, about a mile and a half from Helston. Some elders growing near the shaft had been considered to afford favourable indications; but when it was pointed out that there was a thorn bush in close proximity to them, the emblems had been sagaciously interpreted by an old mining captain to mean that there was a good lode, but that—the workings being full of water—the mine had been drowned, despite the efforts of the ancient adventurers. When the water was pumped out the old pump work was found in the shaft, and an interesting description and sketches of this were given, from which it did not appear that the old engineer possessed any great amount of skill in hydraulics.

The Chairman said he had in his possession the original agreement, dated 1658, for the working of Penrose Mine, between Sir William Godolphin, sole lessee of the Crown minerals in the county, and Mr. Thomas Penrose, owner of the land. It seemed that at that period there was a smelting work at Port Leven, capable of reducing the ores and extracting the silver from them. Could Mr. Hunt give them some information as to any documentary proof that might exist of the existence of silver-lead mines elsewhere in the county at that remote period?

Prof. Hunt said there was some collateral evidence. In the time of Queen Elizabeth all the minerals of what were called the Queen's lands in Devon and Cornwall were leased to three Germans, one of whom brought an action against Mr. Champernowne, for having robbed the Sovereign of a certain number of bowls of silver-lead ore from a mine on the Tamar. Christopher Schutz, one of these Germans, had, it appeared, worked several silver-lead mines in Cornwall; and it was a curious fact that about a century later a person of the same name was Vice-Warden of the Stannaries.

Mr. C. Fox read a valuable paper on "Vital Statistics of Cornish Mining," in which attention was called to the necessity of effectual steps being taken to check the excessive mortality amongst the miners. If when the approach of cholera was feared precautions against it were at once resorted

to, how much more necessary was it that an abiding source of excessive mortality should be met by practical remedial measures, either by the individual action of the lords and adventurers, or by the co-operation of both, with the sanction and support of the law? Nothing should be wanting on the part of these employers that might ward off disease from those they employed, whose average term of existence was now far below even that of the colliers. In 1000 Cornish miners, between the ages of 35 and 76, the proportion of deaths was 218, against 95 5-6ths amongst the non-mining male population between the same ages in the county, and a rate but slightly higher for the Northern collieries. Pulmonary diseases were exceedingly fatal to the miners of Cornwall, and also to the lead miners of Wales and the North of England. In Cornwall, the mining proportion of deaths from pulmonary causes was 116¼ in the 1000, whilst the non-mining proportion was about 24½. In fact, the deaths among miners from pulmonary complaints (and this did not include heart diseases, which were likewise very fatal) exceeded the deaths among the non-mining male population from all causes whatsoever. In violent deaths similar facts were observable; they numbered 468 in 10,000 between the ages of 15 and 35 of the miners; but only 358 for the non-mining community throughout the kingdom. The existence of this immense rate of mortality among the miners was mainly due to the ventilation being insufficient for the removal of the powder smoke and dust, and the air being otherwise impure—to the heating of the borer, wet clothes, cold drafts, long hours underground, irregular time for sleep, food eaten underground under unfavourable circumstances, and from climbing from deep levels when the vital powers were at a minimum. The air underground was almost always injurious to health. Of 142 specimens from the mines of Cornwall and Devon, tested by Dr. Angus Smith, only 12 per cent. contained nearly the normal quantity of oxygen, 27 per cent. were impure, and 61 extremely bad. And this was so although the standard was only 1-2000 better than the air of a somewhat close sitting-room. The ventilation, therefore, needed to be specially attended to; and the lessors of mines might in part assist in remedying the evils pointed out by offering inducements for the provision of mechanical means for ascending when the mines got below a certain depth, and by averting danger from disused shafts. Fences he held to be only a temporary expedient for the latter purpose. Nothing but a covering of grate-bars would suffice, and the cost of so securing the shafts might fairly be deducted from the dues, especially as the relief of the poor was now spread over the whole of a Union, and would not fall with so much force upon the parish in which mines once prosperous had decayed. For the rest he thought they could look neither to agents nor adventurers as a body to secure the objects desired to be attained; but a more effectual remedy could be applied by the appointment of Government Inspectors, judicious enough to judge between what was permanent and what was temporary, and to make allowance for the had air in a winze which was being holed to secure effective ventilation. Mr. Fox concluded by warmly eulogising Lord Kinnaird's disinterested labours, and by expressing a hope that the labours of the committee of which he had been chairman would result in the adoption of improved practices.

Prof. HUNT referred in terms of the highest praise to the plans of East Pool Mine, prepared by Capt. Maynard, and to which the Polytechnic Society had awarded a silver medal. He observed that a similar method had been adopted in the Hartz and in some parts of Sweden. Capt. Maynard afterwards gave an explanation of his productions, which, it may be explained, presents in a compact form every possible information that can be required of the working of the mine. The nature of the ground, of the mineral in the lode, of the cross-courses, the direction of the workings, the cost and progression or suspension of operations at any point, for instance, may be seen at a glance, and comprehended by the veriest stranger. It was observed that the preservation of such a set of documents on the abandonment of a mine would render always available an amount of information that no other method could secure.

Prof. HUNT next laid before the association a paper on Gold Mining in Wales, as now pursued, written by Mr. Dean, the discoverer of the Welsh gold field, who 20 years ago introduced it to public notice by a communication to the British Association. The district dealt with was that of Dolgelly, in Merionethshire, and a description was given of the mode of occurrence of the auriferous quartz veins. The richest gold mine in the United Kingdom—and, indeed, it will bear favourable comparison with others in California and Australia—is, it appears, St. David's No. 1 lode; this extends 50 fms. in length by 30 deep, and from the portion which has worked 4154 tons of quartz have been taken, which have yielded 11,508 ozs. of gold (an average of 2 ozs. 15 dwts. 19 grs. to the ton), the gross profit realised being upwards of 30,000*l*. Mr. Dean's communication to Mr. Hunt, on the occurrence of gold in Cornwall and Devon, which followed, we give *in extenso*. Mr. Dean says:—

"In reply to your enquiries about gold in Cornwall, I can only say that from trials I have made of minerals from various places in the county, I have arrived at the conclusion that gold does exist in some localities in sufficient abundance to be worth the extraction, but I by no means endorse the whole county. Grain gold is so often met with in the tin streams that the presence of the metal in some of the stanniferous rocks cannot be doubted. In nearly all the instances I have examined the gold exists in quartz lodes, and more or less mechanically combined with sulphurous or arsenical iron pyrites, or with iron ores and gossans, and generally in the vicinity of felspathic elvans, or of greenstone rocks. At the Great Dowgas Mine there is an immense lode, from 30 ft. to 60 ft. wide, composed of quartz, carbonate and oxide of iron, hornblende, iron pyrites, and blende, with some copper and tin ores disseminated through the mass. In the vicinity of the lode is a very large and some smaller elvan courses, running more or less parallel to the lode, which bears east and west, and in the eastern part of the ground the lode falls in with and is accompanied by one of the two large branches into which the great elvan splits. I sent a ton of the lode stuff taken indiscriminately from the burrows to Wales, and divided it into two parcels of 9 cwts. each, the one consisting of exceedingly hard iron pyrites, with a little blende disseminated through it; the other, broken nearer to the surface, was quartz and hard iron gossan. Both parcels were ground in mercury, and the result in gold obtained from each was at the rate of 7½ dwts. per ton, or say 28s. per ton value in gold. I may observe that no gold was visible in the stone. To extract the gold from minerals so complex as those forming the mass of the lode is not an easy task upon a working scale, but with proper appliances it may be done. With machinery recently brought into operation in Wales, the tin, copper, and mundic may be extracted and separated at one and the same operation, and the free gold may afterwards be obtained from those products by a process of concentration and subsequent amalgamation with mercury. From a large lode near Tavistock, which carries tin in the back in small quantities, but makes copper in depth, and in which the mineral near the surface is quartz mingled with hard iron gossan, I obtained by trial of ½ ton of the quartz and gossan at the rate of 10 dwts. of gold per ton; this lode is constantly associated with felspathic elvan. Some of the gossans in Cornwall are deserving of attention for gold, particularly where the lodes traverse metamorphic slate, or are in the vicinity of elvan or greenstone. In the range of ground extending from the Carnon stream towards the Lizard some of the lead lodes carry a portion of gold, which would probably be better obtained by smelting than by dressing in water. At a few miles from Falmouth there is a very large lode, from which a very competent assayer and smelter assures me that he has tried many samples of the mineral as broken, and has frequently obtained assays at the rate of 1 oz. and 2 ozs. of gold per ton, and has found gold in paying quantities through the mass of the mineral. The lode is composed of quartz, with lead ore, some copper ore, and iron pyrites in the mass. The neighbourhood of Padstow, where greenstone beds abound, is worth examination. I have devoted but a small amount of time to the question of gold in Cornwall, but intend shortly to make a practical trial in the county. In the British Museum there is a very handsome specimen of visible gold in quartz and chlorite slate from Cornwall. Twenty-one years ago I was much laughed at when I announced the discovery of a true gold formation in North Wales, but the facts have turned out in my favour; may my impressions as to Cornwall be equally correct."

The Rev. SALTREN ROGERS offered some remarks on a very creditable collection of minerals, exhibited in the hall by a member of one of their classes. Such collections were really valuable; and he hoped that hereafter they would be able to bring many of them together.

Dr. FOSTER read some notes on a remarkable mineral deposit in Crowan. They were written by one of the Helston class, and related to an old mine at Keskewes, which had been re-opened, and which contained the deposit in question. The paper was accompanied by a number of highly creditable illustrative drawings and plans by other members of the class.

The last paper brought forward, which was read by Prof. HUNT, was also from Helston. Its subject was the "Surface Indications of Mineral Deposits," dealt with in a communication last year. A large number of facts observable in the district of Breage and Wendron were recorded with much minuteness and evident care. A vote of thanks to the Chairman and hon. secretary closed the proceedings.—*Western Morning News.*

COLLIERY DEMONSTRATION AT BARNSLEY.—One of the largest assemblages of miners ever held in Yorkshire took place on Monday at Barnsley. From an early hour the streets were crowded, the whole of the pits in the district having been closed for the day, and there were fully 7000 persons present. About 12 o'clock a procession was formed, which extended for nearly half a mile, and the vast body, who were accompanied by eight bands, with a great display of flags, banners, &c., proceeded to the grounds at Beechfield, where a platform was erected The chair was taken by Mr. J. Normansell, the secretary of the Miners' Association, who, in introducing the proceedings, remarked on the financial position of the society. After having paid more than 1000*l*. to carry out the provisions of the Act of Parliament relative to the weighing of coal on the pit banks, and large sums for other objects, they had now a cash balance in the bank to the credit of the Barnsley district of 2150*l*. The following resolutions were adopted:—"That the operative miners of the Barnsley district are fully satisfied of the advantages of union in promoting their physical, social, and moral elevation, and, therefore, pledge themselves to support the rules and regulations of the society, and also to spread its principles in the districts not yet in connexion with it. That this meeting pledges itself to support the executive of the Miners' National Association, and also to assist in promoting the forthcoming parliamentary enquiry into the operations of the mines' inspection. That the executive of the National Association be respectfully requested to continue their efforts to correct and amend the present unsatisfactory working of the Mines Inspection Act, the restriction of the hours of labour, compensation for injuries in cases of accident, unjust regulations between masters and servants, and the inefficient working of the Inspection Act in general."

SERIOUS FIRE AT A COLLIERY.—A fire which recently broke out at the pit-head of the Newcastle Colliery, near Nottingham, continues to rage with unabated fury. No efforts are being made to extinguish the flames, but only to prevent their spread. The mass of burning slack and coal is estimated at upwards of 4000 tons, the value of which ranges from 4s. to 6s. per ton. The part at present in flames is of the breadth of from 70 to 100 ft., and the extent around the enormous heap is something more than 200 ft. The heat is very great, and the volumes of gas and effluvium, when driven towards a spectator, are exceedingly oppressive and powerful. It appears that for some six weeks or more steam had been observed issuing from the hugh heap in various directions, but it was not until last Thursday week that the fire assumed an alarming aspect. On Sunday night it was raging with great fury. Every means is now being used to remove the surrounding material. About a quarter of a mile of 4-in. main piping has been laid to some adjoining spring, from which water is forced in great volumes upon the burning mass, thus tending to localise the fire.—*Sheffield Independent.*

HOLLOWAY'S PILLS—WEAKENING WEATHER.—The sultry summer days strain the nerves of the feeble and decrepit, and this state eventuates in disease unless some restorative such as these purifying pills be found to correct the disordering tendency. Holloway's medicine gives ease to the nervous system, which is the source of all vital movements, and presides over every action which maintains the growth and well-being of the body. No one can over estimate the necessity of keeping the nerves well strung, and the ease with which these pills accomplish that end. They are the most unfailing antidotes to indigestion, irregular circulation, palpitation, sick headache, and costiveness, that were ever invented, and in consequence have attained the largest sale and highest reputation.

## GOVERNMENT INSPECTION OF COAL MINES.

THE NORTH STAFFORDSHIRE, CHESHIRE, AND SHROPSHIRE DISTRICT.—Mr. Wynne has been under the necessity of reporting an increase of two in the number of separate accidents, and of eight in the number of deaths. The casualties in this district were one separate accident for each 115,555 tons of coal raised, and one death for each 96,296 tons raised. There are 222 separate collieries under Mr. Wynne's inspection.

HOW COLLIERY EXPLOSIONS ARE CAUSED.—If every colliery had a good and efficient manager, who energetically performed his duty, explosions of fire-damp would be few and far between. This statement may appear startling to the general body of coal proprietors, but as its correctness is quite evident, after continual investigations into the cause of accidents, it is but right that they should have the question clearly laid before them, for with them only rests the responsibility, and the power, of appointing intelligent managers to their mines, and thus prevent those dire calamities that cause so much regret after they have happened, but which, in a great measure, they have the power to prevent. The first general rule lays down clearly enough that "An adequate amount of ventilation shall be constantly produced in all coal mines or collieries, and ironstone mines, to dilute and render harmless noxious gases to such an extent that the working places of the pits, levels, and workings of every such colliery or mine, and the travelling roads to and from such working places, shall, under ordinary circumstances, be in a fit state for working and passing therein." If this rule were strictly carried out how could explosions be, to say the least, probable? The second general rule makes it compulsory that "All entrances to any place not in actual course of working or extension, and suspected to contain dangerous gas of any kind, shall be properly fenced off, so as to prevent access thereto;" therefore, the first provides that there shall be no dangerous gas in the working places, the second that all other places shall be fenced off, whilst the third provides for lamps only being used when required. Then comes the question, why do explosions occur? This admits of a very plain answer. If the sole control of a mine be placed in the hands of a man who is but one remove from a working miner, and not the most intelligent of that class, how can we expect that those delicate tests by which the presence of fire-damp is ascertained will be regularly applied, or be relied on to use those appliances by the adoption of which accumulations of gas are almost impossible? Some managers of this class have admitted the fact of having assisted on many occasions to brush out the gas from places where the men were going to work the same morning, and some have been appointed on the account of that very equivocal qualification of having been burned themselves.

EDUCATION IN THE NORTH STAFFORDSHIRE DISTRICT.—Having made personal enquiries at nearly all the large collieres as to the working of the educational clauses of the Mines Inspection Act, Mr. Wynne finds that in nearly every case the employers dismissed all boys under 12 years of age, rather than be troubled with the certificates of attendance at school, and with the irregular hours of attendance at work which the school produced. There are some cases where a few boys are employed under 12 years of age, and, so far as his knowledge of the facts extends, the proper certificates are filed; but, as a rule, no boys under 12 are employed. In a large portion of his district the butty or chartermaster system prevails, and places the proprietors in a serious dilemma, they being liable for any breaches of the law, although they neither engage nor pay the boys, hence the broad principle is laid down by the proprietors that no boy under 12 shall be employed in the pits. It is not any deficiency in the number of schools, nor the want of support by the masters, that causes the mining population to be so far behind some other portions of the working classes, but it is the want of domestic sympathy, which is so rarely shown by the employer towards the employed. When a colliery is opened the men obtain cottages as near to their work as possible, whilst the master generally resides some distance away from the colliery, thus severing that tender link between the wife and daughters of the master and the wives and families of the workmen, which generally produces such habits of cleanliness and good order where regular visits are made to the cottages and schoolroom of a colliery village. All his enquiries tend to confirm his opinion that no very great inconvenience would have been felt had boys been prohibited from working in the pits under 12 years.

INSPECTORS' DUTIES.—Some misconceptions seem very generally to prevail as to the duties of Inspectors, it not being thought sufficient that they should see that the requirements of the Act are strictly carried out, and that the causes of accidents should be thoroughly enquired into, with the certainty of any culpable negligence being punished; but it would never do to relieve the owners and managers of mines of the responsibility which now devolves upon them, and throw it upon the Government, for this they could not possibly undertake, unless there were as many Inspectors as managers, having an equally numerous staff, with power of control over the expenditure. Whenever complaints are made, or there is reason to suspect danger, or that the requirements of the Act are neglected, pits are inspected, and the required steps taken to prevent accidents occurring. Pits are also inspected on the occurrence of any accident which appears to require it, still it never was contemplated that the Inspectors should act as the managers or viewers of the collieries, but, being in the district, all matters relating to danger can be referred to them, for their assistance and advice.

SOUTH STAFFORDSHIRE AND WORCESTERSHIRE DISTRICT.—Mr. J. P. Baker's report is chiefly technical. He has during the year received, by verbal communication or by letter, many of the latter having been anonymous, many complaints from workmen. Some of these have, upon investigation, been found to be entirely without foundation, whilst in other instances there were real evils existing, which, as the result of his inspection, have been in every case remedied. With respect to the educational clause of the Mines Regulation and Inspection Act of 1860, which enables boys to be employed in coal and ironstone mines between the ages of 10 and 12, on the production of certificates that they are able to read and write, or that they regularly attend school for a fixed period in each week, he has only again to report that the provision remains in his district virtually a dead letter. He had not met with a single case, during 1864, in which a boy was working under such conditions. As he stated in former reports, the rule is to employ no boy under 12 years of age.

YORKSHIRE DISTRICT.—Mr. Morton is enabled to report that although the mining mortality of the past 12 months slightly exceeds that of the previous 12 months, yet when the deaths which occurred during the last two years are compared with those of the preceding two years, the contrast is favourable and encouraging; the lamentable waste of human life in 1861 and 1862 being 184, whilst in 1863 and 1864 it was, fortunately, reduced to 112. It is also satisfactory to observe, in reviewing his experience of more than 14 years as Government inspector, that although the catalogue of working collieries in Yorkshire has actually expanded from 200 to 419 (being an increase of 61 per cent.), and the miners employed have gradually multiplied from about 23,500 to about 34,500 (being an increase of 47 per cent.), and the quantity of coal annually got during the same period of time has steadily advanced from about 6¾ millions of tons to upwards of 9¼ millions of tons (being an increase of 38 per cent.), yet the lives lost in coal mines, excluding fatal accidents in ironstone pits and trial shafts, have happily diminished from 106 in the year 1851 to 50 in the year 1864 (being a decrease of 53 per cent.) It is, therefore, highly gratifying to find that since the passing of the first Inspection Act, in 1850, the rate of mortality in this district has decidedly lessened; whilst the construction of new winnings, the colliery population, and the production of coal have considerably augmented. Pursuing the comparison, it further appears that for each Yorkshire collier killed in the year 1851 only 63,680 tons of coal were drawn, whilst for each collier killed in the year 1864 as many as 186,000 tons of coal were drawn. Moreover, during the last-mentioned year only one colliery operative in 690 came to a violent death, but during the year 1851 the mortality amounted to one in 222. The general summary proves that Yorkshire contains more coal miners than any other inspection district in the kingdom, that only one district possesses more collieries, that only three districts produce more coal, and that with regard to personal safety it stands for emost in the list;—the ratio of deaths to the labourers employed being the smallest.

SOUTH-WESTERN DISTRICT.—Mr. Brough congratulates himself upon being able to report one life lost to every 89,231·34 tons of coal produced in 1864, against one life to every 105,416·00 tons in 1863,—a result which to the uninitiated looks like a calamitous increase of mortality. Perhaps Mr. Brough will explain how he makes it an improvement. The south-western district of the kingdom contains very many iron mines, and yields an immense amount of native material; possibly it may claim to be the most considerable producing division of the whole twelve. This, as a matter of course, adds largely to the labour of the Inspector, and runs up his detail of death to a grave and serious amount. Nevertheless, though the quantity of mineral excavated and landed exceeded that of the previous year, the number of persons killed was, happily, less, the returns being 19 lives lost in 1863, and but 17 in the year following. Thus, it is gratifying to be able to record that one of the departments of the district, at all events, manifested both advance and improvement in 1864. These native clay bands must be more and more sought for, in accordance with the increasing requirement by engineers of the quality of toughness and durability in railway bars and other classes of finished iron. He made some mention of this fact in his last year's report, and reproduces the statement to show that the district must, as time goes on, increase in the development of this its valuable source of mineral wealth and prosperity.

SOUTH WALES DISTRICT.—Mr. T. E. Wales reports that in his district the computed number of persons employed in 1864 was 29,076; computed quantity of coal raised, 6,948,000 tons; separate fatal accidents, 101; lives lost by the accidents, 105; persons employed per separate fatal accident, 288; persons employed per life lost by the accidents, 277; tons of coal raised per separate fatal accident, 68,792; tons of coal raised per life lost by the accidents, 66,171. The number of fatal accidents in the ironstone mines was 7, causing 7 deaths, all from falls of stone. The computed number of iron miners is 3900, and the quantity of ironstone raised 450,000 tons, which gives 1 fatal accident, and 1 life lost, to every 557 persons employed annually; and 64,285 tons of ironstone raised to each fatal accident and life lost. It will be observed that the percentage of deaths in coal mines far exceeds the percentage in ironstone mines, although in Mr. Wales' opinion, the supervision is much more efficient in the former than in the latter. He has carefully enquired into the working of the Act in reference to the education of boys employed in coal and ironstone mines under 12 years of age, and finds, with some few exceptions (when they are employed on producing certificates from properly qualified schoolmasters as to their attendance at school, &c.), they are prohibited from entering the mines until they have reached the age of 12. In only one instance has he heard a colliery manager complain of the working of this part of the Act; who said parents would, and did, send their children to other work, from which they were not prohibited, rather than keep them at home so long unemployed, where they would continue, and ultimately cause a scarcity of colliers, now in great demand. This he has no doubt is so where collieries are near either copper or iron works, &c. There is a much stronger disposition manifested by the workmen themselves to have their boys employed under the stipulated age than by either managers or owners. The men often complain that they cannot afford to keep their boys so long unemployed. In all large works or collieries good schools are established, and at collieries not sufficiently extensive to support schools the children are sent to other schools, National and British, to which many of the owners subscribe, and which are generally within a reasonable distance. In all except the most isolated cases schools of one form or other are provided. In the case of schools in connection with the works, the terms are from one halfpenny to twopence per week, depending chiefly upon the age. At schools not connected with the works the terms range from one penny to fourpence per week, also depending on the age. He considers that the results of the past year tend to prove that the Coal Mines Inspection Act is working satisfactorily.

PATENT WELL.—Amongst the most recent American inventions is a patent well. The process is so simple and yet so effectual that it must ome into general use at once. An iron-tube is driven straight into the ground, just as one would drive a stake, and on reaching a depth at which any well would find water, averaging here about 20 ft., and often less, a pump is attached to the end of the tube remaining above ground, and up comes the water.

## SAFETY LAMPS—No. II.

STEPHENSON'S SAFETY-LAMP.—This lamp was invented by the late George Stephenson, almost at the same time as that of Sir Humphry Davy. The air is admitted through a number of small holes pierced through the under side of the lower brass ring of the cage. The wire gauze cylinder is lined with a close-fitting glass chimney, surmounted by a cap of sheet copper, perforated with numerous holes, which are a little larger than those of the wire meshes. This lamp is said to be safer than the common form of Sir H. Davy's, as the gauze is kept from coming in contact with the flame by the glass lining, and cannot become red-hot. Owing to the small size of the air holes they require to be very carefully cleaned before use, into order to make the light burn steadily.

HOWDEN AND THRESH'S SAFETY-LAMP.—This resembles a Davy lamp of extraordinary size, and has a tubular wick, with a special contrivance for admitting air to the inner side of the flame. The foot of the lamp is a hollow cone prolonged below the base of the oil vessel, and is pierced with a ring of air holes at the bottom. A slightly conical tube passes up through the body of the lamp; it is covered at the lower end by a double disc of wire gauze, formed of two single thicknesses kept about a quarter of an inch apart by a brass packing ring. The wick is raised or lowered by an upright screw working through a nut in the end of an arm which projects horizontally from the wick-holder

UPTON AND ROBERTS' SAFETY-LAMP.—The air in this lamp is admitted through a vertical ring pierced with square holes, covered on the inner side with a flat disc of gauze, and is supplied to the flame by a conical argand cap. The wire gauze chimney is contained within an outer glass cylinder, which bears at the bottom against the lower ring of the cage, and at the top against a strong coiled spring of iron wire, in order that it may not be broken by a sudden jar. The top of the lamp is formed of a double brass cap with parallel walls, the outer one is pierced with a series of large round holes for distributing the gases generated by the flame. It is said to be a very safe lamp, but is inconvenient on account of the facility with which the flame is extinguished if it be subjected to a jerking motion when carried.

ELOIN'S SAFETY LAMP.—The air is admitted in this lamp through a short upright cylinder of wire gauze, and is distributed to the flame by an argand cap. The light is surrounded by a short stout glass cylinder, whose outer surface is shaped to a hyperboloid curve for diffusing the light. The glass is set in a cage with seven stay bars, six of which are solid, and one is hollow; the latter serves as a case for the locking bolt, which is vertical instead of horizontal, as in all the preceding examples. A conical brass reflector slides on the stays; it is used for concentrating the light on the floor of the workings when the lamp is suspended. The wire gauze chimney is replaced by a solid brass tube, covered by a gauze disc at the top.

T. Y. HALL'S SAFETY-LAMP.—This combines the peculiarities of several of the preceding lamps. The cage is made in two parts, the lower part being longer and of greater diameter than the upper one. The air is admitted through holes in a brass ring, as in Stephenson's lamp; the amount necessary for feeding the flame is drawn by a glass argand chimney, which is surrounded by a cylinder of silver wire gauze, with a second glass outside. Another part of the air passes up through a number of holes in a flat portion of the lower ring of the cage, and out through a corresponding series of holes in the upper ring, thus establishing a cooling current between the inner and outer glasses. The amount of air passing by this channel is regulated by a ring, which can be screwed over the upper series of holes, so as to contract their apertures at pleasure.

BOTY'S SAFETY-LAMP.—This is one of four patterns of safety-lamps recommended for use by a Royal Commission appointed by the Belgian Government, the others being Mueseler's, Eloin's, and the simple Davy. The admission of the air is effected on a similar principle to that adopted in Eloin's lamp, namely, through a perforated copper ring made slightly conical, and placed a little below the level of the flame. The light is covered by a stout glass cylinder the top of the lamp is formed by an ordinary gauze chimney.

MUESELER'S SAFETY-LAMP.—This lamp is extensively employed in the collieries of Belgium and the North of France. It has a very thick glass cylinder covering the light, with a gauze chimney, made slightly conical, placed above it. An inner conical tube of smaller diameter, terminating below in a trumpet-shaped mouth reaching to within a short distance of the flame, is fixed within the gauze, the space between the two tubes being closed by a wire gauze disc. The feed air enters through the lower part of the gauze chimney, and passes through the disc along the inner side of the glass, whereby the latter is keep cool.

DR. GLOVER'S SAFETY-LAMP.—This is similar in principle to the preceding one, but has a shorter draught hood over the flame. The light is covered by two concentric glass tubes, the space between them is in connexion with the external air above, and the interior of the lamp below, both sides being covered by a plate of wire gauze. The whole of the feed air has to pass between two glasses, serving at the same time as a refrigerating current, the upper gauze chimney serving only as a means of discharge for the products of combustion.

MR. H. MACKWORTH'S SAFETY-LAMP.—This lamp is almost identical in construction with the preceding one, the chief difference being that the upper gauze covering the space between the two glasses is placed within the outer gauze chimney, and instead of being flat, is made of a conical form. The lower one in like manner is curved to the shape of an argand hood, and placed immediately above the wick. The system of locking is also different, as instead of the usual screw bolt and key, a soft metal rivet made of lead or pewter is employed. The rivet is passed through a hole in two perforated plates projecting from one side of the oil vessel, and is clinched by a pair of pincers, having a device engraved on one of its jaws. The soft metal completely fills up the space between the two plates, and takes an impression of the device, so that it is impossible to open the lamp without defacing the impression. A curved metal reflector is placed within the inner glass for concentrating the light on one side.

BIRAM'S SAFETY-LAMP.—This has a silvered parabolic mirror placed behind the light, and a flat plate of mica with a narrow slip of guaze below it, set in a copper frame in front, which slides between the grooved edges of the body of the lamp, and can be replaced by a similar frame made of gauze only. The chimney is like that of Eloin's lamp, a solid cylinder with a short gauze cap at the top.

CRANE'S SAFETY-LANTERNS AND LAMP.—These include two large square lanterns, and a small Davy lamp. Of the former, one has plain gauze sides, and one is partly glazed, with narrow opening covered with ganze below. They are too weakly constructed to be really safe, as there is no protection for the large flat surfaces of glass, and the holes in the top cowl, by which the hot gases from the flame are discharged, are dangerously large, and unprotected by gauze stoppings. The small lamp is also very slight in construction, and the trimming wire is inserted through the mesh of the gauze at the level of the flame, an arrangement that would most propably work a large hole into it after having been used a short time. A lantern similar in character is used in some of the collieries in the vicinity of Leeds by men working trains of trucks on the principal road-ways. The gauze screen is of a much more open mesh than that used in safety-lamps, and is intended only to screen the flame against currents of air, and not as protector against explosion.

MEXICAN CANDLE LANTERN, OR LANTERNILLA.—This is a combination of a plain wooden lantern, covering the flame with an open case, in which the body of the candle is carried, so that the flame is nearly at the level of the floor of the box, which is lined with a protecting metal plate. The candle is supported by a leathern thong, and can be raised as it burns away. A similar case at the back of the slide is closed by a hinged door, and serves as a receptacle for spare candles. This lantern is carried by a transverse wooden handle at the top.

STEEL MILLS.—This contrivance was used for illuminating the dangerous parts of fiery collieries before the invention of the safety-lamp. It consists of of a steel disc mounted on a horizontal axis carrying a pinion, which is kept in rapid rotation by a large spur wheel with a crank handle; one man holds the machine and turns the handle, whilst a boy presses a flint against the edge of the revolving disc, a stream of sparks is thrown off, giving a feeble and uncertain light, which is not altogether free from danger, as several explosions have been recorded where the gas has taken fire from the sparks of the steel mill. The steel mill was introduced into the North of England collieries in the latter part of the eighteenth century, and disappeared almost immediately after the introduction of the safety-lamp, in 1815, and is now very rarely to be met with, even by collectors of mining curiosities.

PURIFYING COAL AND ORES.—An invention, the object of which is to neutralise and destroy the sulphur and other impurities that are found in coal and ores, has been invented by Mr. B. F. Penniman, of New York; it consists in mixing certain chemicals with the minerals that are to be treated, and then subjecting them to the action of steam. By this means impure coal may be freed from sulphur, and rendered available for purposes such as forging, smelting, the manufacture of gas, and the like, for which it may otherwise have been wholly unsuitable. Ores of iron containing sulphur, and that, therefore, produce red-short iron, may be purified to improve the quality and quantity of the yield, and ores of gold may be more easily and perfectly amalgamated than by the present ordinary process, in which the action of the mercury is to a great extent prejudiced by the presence of sulphur, notwithstanding the action of any moderate amount of fire that may be brought to bear upon it. The coal or other mineral that is intended to be treated is placed in a retort or tank, and mixed with acid or alkaline agents, either in solution or in a dry state, and the tank is then closed, and steam admitted for a few hours; after the steam has been shut off, and the tank opened and allowed to cool, the water may be drawn off, and the purified mineral applied to the purpose or use for which it was intended.

IMPROVED FRICTION PULLEY.—Fast and loose pulleys, the first to transmit power, and the second to carry the belt when not at work, have been used for years, but there are many objections to them which render some other device desirable. Friction pulleys as a substitute have been employed with advantage, and many are now in use. An improved form of this contrivance has recently been patented in America by Mr. L. H. Olmstead, of Newark, New Jersey, which is described in the *Scientific American* as being novel in design and very efficient. By a simple movement of the shipper bar the pulley is made to drive the machine, and runs free without imparting power when the bar is thrown back. The outer pulley has a secondary wheel cast upon its arms. Both the inner side of the large pulley, and the outer side of the small one, are accurately turned, and between these faces is a cam-block of peculiar shape, constructed in such a way that it will bite or jam between the runs when the coupling is slipped up on the shaft by the shipper. There are no parts to rattle when in or out of use, or to stick so that they cannot be readily worked.

GOOD MINING.—McCall, a miner on Dog Creek, a tributary of the Sacramento, some forty miles above Shasta, struck into a gulch last spring, just by way of "amusing himself," and after a little digging, found himself amused by the picking up of a lump of virgin gold weighing 13¼ lbs. Looking upon it as rather a pleasant prospect, he continued the pleasant recreation, and took out another piece worth $324, another $135, another $124, another $124·50, another $85, another $74, another $68, another $77, another $30·50. His aggregate receipts for the spring, and until the water dried up, amounted to $6000.—*Mining and Scientific Press, San Francisco.*

## Royal School of Mines.

**ROYAL SCHOOL OF MINES.**

DIRECTOR.
Sir RODERICK IMPEY MURCHISON, K.C.B., F.R.S., &c.

During the Session 1865–6, which will commence on the 2d of October, the following COURSES of LECTURES and PRACTICAL DEMONSTRATIONS will be given:—

1. CHEMISTRY ..... By E. FRANKLAND, F.R.S., &c.
2. METALLURGY ..... By JOHN PERCY, M.D., F.R.S.
3. NATURAL HISTORY ..... By T. H. HUXLEY, F.R.S.
4. MINERALOGY ..... } By WARINGTON W. SMYTH, M.A., F.R.S.
5. MINING ..... }
6. GEOLOGY ..... By A. C. RAMSAY, F.R.S.
7. APPLIED MECHANICS ..... By ROBERT WILLIS, M.A., F.R.S.
8. PHYSICS ..... By JOHN TYNDALL, F.R.S.

INSTRUCTION IN MECHANICAL DRAWING, by Rev. J. HAYTHORNE EDGAR, M.A.

The fee for students desirous of becoming associates is £30 in one sum, on entrance, or two annual payments of £20, exclusive of the laboratories.

Pupils are received in the Royal College of Chemistry (the Laboratory of the School), under the direction of Dr. Frankland, and in the Metallurgical Laboratory, under the direction of Dr. Percy.

Tickets to separate Courses of Lectures are issued at £3 and £4 each.

Officers in the Queen's Service, Her Majesty's Consuls, acting mining agents, and managers, may obtain tickets at reduced prices.

Certificated schoolmasters, pupil teachers, and others engaged in education, are also admitted to the lectures at reduced fees.

His Royal Highness the Prince of Wales has granted two Scholarships, and several others have also been established.

For a prospectus and information apply at the Museum of Practical Geology, Jermyn-street, London, S.W. TRENHAM REEKS, Registrar.

**THE MUSEUM OF PRACTICAL GEOLOGY, JERMYN-STREET,** will be RE-OPENED on MONDAY, the 11th inst. Open free to the public every day but Friday.

**MINERALOGY.—KING'S COLLEGE, LONDON.**—Prof. TENNANT, F.G.S., will deliver a COURSE OF LECTURES on MINERALOGY, with a view to facilitate the study of GEOLOGY, and the application of mineral substances in the ARTS. The lectures will commence on FRIDAY, October 6, at Nine A.M., and will be continued on each succeeding Wednesday and Friday at the same hour until Christmas. Fee, £2 2s. Another course of LECTURES on MINERALOGY and GEOLOGY will be given on WEDNESDAY evenings, from Eight to Nine. These begin Oct. 11, and will be continued until Easter, 1866. Fee, £1 11s. 6d.
R. W. JELF, D.D., Principal.

**GREAT TREGUNE CONSOLS.—A SPECIAL GENERAL** MEETING of shareholders will take place at No. 4, Frederick's-place, Old Jewry, on WEDNESDAY, the 13th September, at Three o'clock precisely, to consider the present position of the mine, and adopt such measures as may be deemed advisable.
Sept. 5, 1865. By order.

**THE CWT-Y-BUGAIL SLATE COMPANY (LIMITED).**—At an EXTRAORDINARY GENERAL MEETING of the shareholders of the above company, held, by adjournment, at the Company's Quarry, Penmachno, on the 25th day of August, 1865, it was unanimously resolved—"That so much of the 38th clause of the company's Articles of Association, dated the 8th day of December, 1863, as provides that the general meetings of the company shall be held in Bangor, in the county of Carnarvon, shall be rescinded, and that, instead thereof, the following provision shall henceforth be read as forming part of Clause 38, viz.:—The general meetings of the company shall be held in Bangor, in the county of Carnarvon, unless the directors shall from time to time, or at any time, determine otherwise, and in any such case the then next meeting shall be held at the place to be named in the notice of such meeting to be given in pursuance of Clause 44 of the said articles, save and except that in case of a meeting being convened by the requisitionists or other members referred to in the 43d clause of these articles (in default of the directors convening the same), such meeting shall be held at such place in London or Bangor, or at the Company's Quarry, as shall be named by such requisitionists or other members in their notice of the meeting."

Shareholders are requested to take notice that an extraordinary meeting will be held at the Penrhyn Arms Hotel, in Bangor, in the county of Carnarvon, on Thursday, the 21st day of September instant, at One o'clock P.M., for the purpose of considering and, if deemed expedient, confirming the above resolution.
Bangor, 4th September, 1865. J. HAYWOOD, Managing Director.

**ELFORD, WILLIAMS, AND CO.,**
COPPER ORE WHARFINGERS,
SHIP BROKERS AND COAL EXPORTERS,
METAL AND GENERAL COMMISSION AGENTS,
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ELFORD, WILLIAMS, and Co. having erected an assay office, and engaged the services of a practical Cornish assayer, who will devote his whole time to this branch of their business, they are now in a position to make correct assays of silver, copper, and other mineral ores, on the most moderate terms.

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Office of the Hazel Grove Silver-Lead Mining Company (Limited), Flintshire. Prospectuses, reports, &c., of this valuable property may be had on application to No. 28 Princess-street, Manchester.

**MR. CHARLES BAWDEN, INSPECTING MINE AGENT,** ST. DAY, CORNWALL, OFFERS HIS SERVICES to CAPITALISTS SEEKING to INVEST in *bona fide* MINES.

**CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN,** via SHREWSBURY, has had upwards of 20 years' practical experience in mining, during which time he had the entire management of several English and Welsh mines. Residing in the centre of the CARDIGANSHIRE MINING DISTRICT, and in close proximity to those of MERIONETHSHIRE and MONTGOMERYSHIRE, he OFFERS HIS SERVICES to SURVEY and REPORT UPON ANY MINE.

**CAPT. CHARLES WILLIAMS** is at all times in a POSITION to FURNISH CAPITALISTS with RELIABLE INFORMATION respecting MINING in NORTH and SOUTH WALES, in which they should embark or avoid. C. WILLIAMS has prepared a list of most of the mines that are likely to pay, and can name two or three that will turn out a great prize.
Tyn-y-Wern, Taliesin, via Shrewsbury, April 18, 1865.

**CAPT. J. RABEY OFFERS FOR SALE FIFTY SHARES,** at the nett price of £3 per share, in the CAI-R-PANT MINE, joinining the great Minera Mine, and one of the best prospects in the district, being all whole ground, and he mine paying for itself now at the shallow depth of 40 yards.—Address, Captain J. RABEY, Coedporth, near Wrexham, Denbighshire, North Wales.

**GOVERNMENT SECURITIES, JOINT-STOCK BANKS,** RAILWAY DEBENTURES AND BONDS, COLONIAL SECURITIES, FOREIGN BONDS, AND BRITISH MINES.—MESSRS. TREDINNICK AND CO., of 78, LOMBARD STREET, LONDON, E.C., may be consulted confidentially as to the eligibility of all *bond fide* investments. A selected list forwarded on application.

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[Agents wanted.]

**SALOM'S NEW OPERA and FIELD GLASS,** and the RECONNOITERER GLASS, price 10s. 10d., sent free.—This tourist's favourite, through extraordinary division of labour, distinctly shows small windows 10 miles off, landscape at 30 miles, Jupiter's moons, &c.—The MARQUIS OF CARMARTHEN: "The reconnoiterer is very good."—The EARL of BREADALBANE: "I find it all you say; and wonderfully powerful for so very small a glass."—Rev. LORD SCARSDALE "approves of it."—LORD GIFFORD, of Ampney: "Most useful."—LORD GARVAGH: "Remarkably good."—SIR DIGBY CAYLEY, of Brompton: "It gives me complete satisfaction, and is wonderfully good."—SIR W. H. FEILDEN: "I do not think it can be surpassed: it gives great satisfaction."—CAPTAIN SENDEY, Royal Small Arms Factory, Enfield, "found it effective at the 1000 yards range."—F. H. FAWKES, of Farnley Hall, Esq.: "I never before, although I have tried many, met a glass combining so much power for its size with so much clearness."—*The Field:* "We have carefully tried it at an 800-yard rifle range, and found it fully equal to any of those present, although they had cost more than four times its price."—*Notes and Queries:* "What intending tourist will now start without such an indispensable companion?" The celebrated HYTHE GLASS shows bullet-marks at 1200 yards, and men at 3½ miles; price, 31s. 6d. All the above glasses, respectively bearing the registered trade marks, "Salom," "Reconnoiterer," and "Hythe," are only to be had direct from SALOM and Co., 98, Princes-street, Edinburgh. A few hours will carry a glass to almost the remotest town in the United Kingdom.
No agents of any kind anywhere.

## In the Court of the Vice-Warden of the Stannaries.
### Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the NORTH TRELETHER MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 6th day of September instant, presented to the Vice-Warden of the Stannaries by George Oxley, a contributory and creditor of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, in the county of Cornwall, on Wednesday, the 20th day of September instant, at Two o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner, or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 16th day of September inst., and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.
EDMUND HAMBLY, Wadebridge
(Solicitor for the Petitioner).
HENRY SEWELL STOKES, Solicitor, Truro
Dated Truro, September 7, 1865. (His Agent).

## In the Court of the Vice-Warden of the Stannaries.
### Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the BURRA BURRA MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 29th day of August last, presented to the Vice-Warden of the Stannaries by John Mayne, a shareholder of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, in the county of Cornwall, on Wednesday, the 20th day of September instant, at Half-past One o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, or his solicitor, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner, or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Saturday, the 16th day of September instant, and notice thereof must at the same time be given to the petitioner, or his solicitor.
S. T. G. DOWNING, Redruth
(Solicitor for the Petitioner).
HODGE, HOCKIN, AND MARRACK, of Truro
(Agents of the said Solicitor).
Dated Truro, this 6th day of September, 1865.

## In the Court of the Vice-Warden of the Stannaries.
### Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the EAST WHEAL ABRAHAM MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 29th day of July last, presented to the Vice-Warden of the Stannaries, by Arthur Harvey, a shareholder of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, in the county of Cornwall, on Wednesday, the 20th day of September instant, at One o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner, or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Saturday, the 16th day of September instant, and notice thereof must at the same time be given to the petitioner, his solicitor, or agents.
PRESTON J. WALLIS, Bodmin
(Solicitor for the Petitioner).
HODGE, HOCKIN, AND MARRACK, of Truro
(Agents of the said Solicitor).
Dated this 6th day of September, 1865.

## In Chancery.

VICE-CHANCELLOR WOOD.

IN the MATTER of the COMPANIES ACT, 1862, and in the MATTER of the CAPPAGH MINING COMPANY (LIMITED).—The CAPPAGH COPPER MINE, in the county of CORK, in IRELAND.—FOR SALE, BY PRIVATE CONTRACT, under an Order of the High Court of Chancery, made in this matter, of date the 9th day of August, 1865, the INTEREST of the above-named company in this MINE, and in the powerful and perfect ENGINES, MACHINERY, PLANT, and STORES, now in full work. The mine is held by the company under an indenture of underlease, dated the 29th day of September, 1862, for a term of which 14 years are unexpired, at a rent certain of £50 and royalty of 1-16th of sale moneys, clear of all deductions, or 1-16th of the minerals raised, with a surface rent of £2 10s. per acre. The underlease contains a covenant for renewal at option of lessee, without fine, for the further term of 21 years. The workings consist of three large shafts, of which the skip shaft has been sunk below the 94 fm. level, which is the deepest of nine levels that have been driven. Each level has yielded fairly, and the value has considerably improved in depth according to the mine captain's latest report. Another sinking taken up is expected to bring the south nearly to join the north part of the lode, when a still greater improvement is looked for.

The first sale of ore by the company was made at Swansea, in June, 1863, and sales have since been made amounting to 461 tons nett, yielding £3871 nett at Swansea. The late sales of ore average £8 11s. per ton nett at Swansea. The ventilation is excellent, and the water moderate. It may fairly be assumed that the mine can now be immediately worked to a considerable profit. In the locality of the mine skilled labour is abundant. The inhabitants are industrious and orderly, and provisions are cheap. The mouth of the mine is on the brow of a hill, half a mile from the sea, and the ore is shipped in a cove, which will admit a vessel of 100 tons. Over £20,000 has been expended by the company in the purchase and erection of first-class machinery, including a 50-inch double-cylinder pumping engine and buildings, of capacity for deep workings in unwatering and developing the mine, and in the formation of a railway and harbour for shipping ore. The plant, which is first-class, includes double-acting whim and crushing engine, powerful crushers, dressing-floors, and every requisite (save timber and small iron) for carrying the mine to a depth of about 300 fms., and for preparing the ore by coarse or fine dressing for market.

Tenders will be received by the official liquidator, FREDERICK WHINNEY, Esq., No. 5, Serle-street, Lincoln's Inn-fields, on or before Tuesday, the 19th day of September, 1865. Should the official liquidator consider the tenders insufficient, he will, on or before Saturday, the 23d September, intimate by letter to all who have tendered the terms and reserve price on and at which he is prepared to sell, and further tenders will thereafter be received until the 29th September, 1865. The official liquidator reserves the right to accept any tender, whether original or substituted, as he shall ultimately consider most advantageous for the company, or to reject all tenders made. The original lease and underlease, and a full report on the mine by the mine agent up to the 19th August, 1865, with working plans and inventory of plant, &c., may be seen, and all particulars as to the title and an alleged incumbrance, and the conditions of sale, ascertained, and orders to inspect the mine and workings obtained on application to the official liquidator, or to Messrs. TUKE and VALPY, 17, Lincoln's Inn-fields, solicitors for the official liquidator.

## In Chancery.

BRECONSHIRE—The IMPORTANT PROPERTY, known as the PALLEG COLLIERY, in the parish of YSTRADGYNLAIS.

MESSRS. PRICE AND CLARK WILL SELL, BY AUCTION, at the Cameron Arms, Swansea, on Friday, Sept. 15, at Twelve for One, in One Lot, pursuant to an order of the High Court of Chancery, made in the Matter of the Companies Act, 1862, and of the Palleg Anthracite Coal and Iron Company (Limited), with the approbation of the Master of the Rolls, the IMPORTANT PROPERTY known as the PALLEG COLLIERY, situate in the hamlet of PALLEG, in the parish of YSTRADGYNLAIS, in the county of BRECON, together with the capital STEAM ENGINE, and all the expensive PLANT, MACHINERY, and MATERIALS for working the mine, which is now in full operation.

The property is leasehold, and held for a term of 42 years, from 25th March, 1862, at a dead rent of £70 per annum, and subject to a royalty of 1s, 1d. per ton (7d. for coal and 6d. ironstone) on the nett amount of coal and ironstone raised.

Printed particulars and conditions of sale may be had at the principal inns in Swansea and Neath; and in London of JOHN TUCKER, Esq., solicitor, 28, St. Swithin's-lane, City; of GEORGE SCOTT, Esq., the official liquidator, 2, Bond-court, Walbrook; and of Messrs. PRICE and CLARK, 48, Chancery-lane.

ESKDALE, NEAR WHITBY,
VALUABLE FREEHOLD ESTATE AND MINERAL PROPERTY.

MR. FLINTOFT WILL SELL, BY AUCTION, at the Angel Hotel, Whitby, on Wednesday, Sept. 20, 1865, at Three o'clock in the afternoon precisely, the VALUABLE FREEHOLD ESTATE of HAGG HOUSE and HOWLET HALL, in the township of Ugglebarnby, in the parish of Whitby, in the North Riding of the county of York, containing 255 A. 0 R. 1 P., in a ring fence. The Estate is let in two farms to yearly tenants, has good substantial buildings, is in a good state of cultivation, and situate within two miles of Whitby, in the beautiful valley of the Esk.

The VALUABLE IRONSTONE contained in the property can be advantageously worked, as the Whitby and Pickering Railway passes through the Estate.

The property may be viewed on application to the tenants, and plans and particulars may be obtained of the Auctioneer; of Mr. BOULBY, land agent, Whitby; Messrs. WALKER, HUNTER, and GRAY, solicitors, Whitby; and of CHRISTOPHER L. BRADLEY, Prior House, Richmond, Yorkshire.—August, 1865.

BOSCAWEN MINE, NEAR BLACKWATER, CORNWALL.
TUESDAY, SEPTEMBER 26, 1865.

MR. BURGESS WILL SELL, BY PUBLIC AUCTION, on the above date, at Eleven o'clock in the forenoon, the following MACHINERY and MATERIALS, viz.:—One bright full scantle 70 in. cylinder PUMPING ENGINE, THREE 12 ton BOILERS and fitting; one 20 in. cylinder DRAWING ENGINE, 8 ton BOILER and fittings; STEAM CAPSTAN and CRUSHER; a large quantity of 10, 18, 19, and 20 in. pumps; H pieces, doorpieces, brass lined working barrels, windbores, plunger poles, 2 balance bobs, 2 sets of lofty shears, 2 angle bobs, pitch pine rods, faggotted rod plates and bolts; ¾ in. and 9-16ths chain, a large quantity of 2 ft., 4 ft., and 6 ft. shieves, and flat-rod pulleys; iron and wood flat-rods, bucket rods, bridge and flat rail iron, staples and glands, smiths' bellows, smiths' tools, anvils, and sundry materials.—Dated September 6, 1865.

**MATERIALS FOR SALE, BY PRIVATE CONTRACT,** at EAST MARGARET MINE, LELANT, near the St. Ives Road Station, or about one mile from Hayle:—

A 37 inch CYLINDER PUMPING ENGINE.

A 30 inch CYLINDER STAMPING ENGINE, 8 feet stroke, with 32 heads, complete—a first-class machine; with 9 ton BOILER.

A 20 inch CYLINDER WINDING ENGINE, 4½ ft. stroke—a first-class machine; with 9 ton BOILER; cage and fly-wheel complete.

One 8-arm CAPSTAN complete, 150 fathoms, 8 to 12 inch pitwork, with matching pieces, H-pieces, clack-seat pieces, poles, stuffing-boxes, glands, &c., complete, all in good working condition.

60 fms. 2½ in., 30 fms. 1¼ in., and 20 fms. 1½ in. iron pump rods; 2 horse whims, complete; 200 fms. ⅜ in. horse whim chain; shaft tackle, with 12 ft. shieve; 2 new 12-ft. shieves; 25 fms. new tram rods; wood and iron tram wagons; large quantity of flange and other bolts, of various sizes and lengths; 2 to 3 tons fagotted iron stripping plates; 4 to 5 tons scrap and old iron; several lots of new iron and steel.

STAMPS' FLOORS.

32 hand and patent frames, with launders and valves complete; 20 36 to 45 in. tin kieves; trunks, buddles, sheds, and dressing tools, complete.

SMITHS' SHOP.

2 36-inch bellows; anvils, vice, screwing stocks, mandrill, smiths' and miners' tools, complete. The account-house furniture, comprising tables, chairs, cooking apparatus, utensils, knives, forks, dinner set, tea set, &c.

For further information, apply to the agents on the mine; or to Messrs. HOCKIN and SON, Albert Stores, Penzance.—August, 1865.

**MINE AND MATERIALS FOR SALE.—TO BE SOLD, BY** PRIVATE CONTRACT, the RESIDUES of the SEVERAL TERMS in the EXISTING SETTS (of which 17 years are now to come and expire) of and in a VALUABLE TIN MINE, in which there are six or seven known lodes, and which mine is situate in the parish of Uny Lelant, in West Cornwall, and extends in length from east to west about half a mile, and in width from north to south upwards of a quarter of a mile, and adjoins Wheal Margaret, which lies north, and Wheal Kitty, which lies east, Wheal Mary and Wheal Reeth being the next adjoining mines, from the whole of which large profits have been realised. There is a cross-course in all the above mines, which runs from north to south, and passes through the middle of the setts now offered for sale, and the tin in all the above adjoining mines has been chiefly made by the junction of whetstone, or porphyry and granite.

The mine for sale has been sunk upwards of 75 fathoms, and levels driven at various depths, and tin raised by such workings; and by sinking the shaft another 10 fathoms, and driving the levels east and west, it is fully expected that in a short time a dividend mine similar to those adjoining will be realised.

With the interest now subsisting in the several setts, the whole of the machinery on the mine will be included for sale, and these comprise a DRAFT ENGINE, 24 inch, with 9 ton BOILER; a WINDING ENGINE, 20 in., 7 to 8 ton BOILER; upwards of 75 fms. of pitwork, one portion 8 in., and the other 7 in. pumps; whim chain, kibbles, skip and tram wagons, and materials of various descriptions, with sundry old and new iron, smiths' tools, account-house furniture, &c., the whole of which will be found in good order and condition; and the speculation is one, it is believed, that will require only a small further outlay to secure a permanent dividend-paying mine.

The winding engine or steam whim, being situate in an abandoned portion of the sett, has not been, and will not be, required for future workings, and therefore may be sold at once.

Reports by highly respectable agents may be seen if desired, and any information obtained; and tenders for the purchase of the whole, or for the whim only, will be received until 13th September next, by Mr. WILLIAM RICHARDS, 17, Regent-terrace, Penzance.
Dated August 13, 1865.

**MERIONETHSHIRE MINING SETTS FOR SALE—IRON,** SLATE, AND MANGANESE.—Or shares in either of the above, situate near railways. The iron and manganese of rich quality, and abundant at surface. The slate setts near prosperous quarries.—Address letters Mr. G. E. PETERS, Dolgelly.

REDNAL COPPER MINE.

**FOR SALE, BY PRIVATE CONTRACT,** all that VALUABLE MINERAL PROPERTY, known as the REDNAL MINE, situated at EARDISTON, SALOP, within two miles of the Rednal Station, on the Shrewsbury and Chester Railway, together with the EXTENSIVE BUILDINGS, PLANT, STEAM-ENGINE, MACHINERY, ORES AT SURFACE, STORES, and MATERIALS.

Full particulars, with favourable reports on the property, can be obtained of HENRY THRELKELD EDWARDS, Esq., accountant, 9, King's Arms-yard, Moorgate-street, the Liquidator of the British Copper Company; or of ANTHONY PULBROOK, Esq., solicitor, 1, Threadneedle-street, London.

**NANTYBAR ESTATE, GLAMORGANSHIRE.—TO BE LET,** ON LEASE, for a long term of years, all the VALUABLE VEINS, MINES, and SEAMS of COAL, CULM, IRONSTONE, IRON ORE, BLACKBAND, CLAY SAND, and STONE, situate, lying, and being under the above estate, in the parish of MICHAELSTONE-SUPER-AVON, in the county of GLAMORGAN, containing about SEVEN HUNDRED ACRES. The South Wales Mineral Railway runs through the property, and is a broad-gauge line, communicating with the Great Western Railway at Briton-ferry. The position of the railway through the property is such as to render the working of the minerals easy, and at a small cost. The line being open and in daily work, the minerals can be brought to market without delay. A survey of the property, and a report thereon, are in course of preparation; but, in the meantime, the property may be viewed, and further particulars obtained, on application to Mr. JAMES KEMPTHORNE, solicitor, Orchard-street, Neath; or to Mr. MORGAN JONES, Cefn Llan, Llangiwg, Pontardawe, near Swansea.

**SLATE QUARRIES, TO BE LET.**—ALLT DINAS SLATE QUARRY, situate in the parish of LLANAFANFAWR, in the county of BRECON, ten miles from Builth, five from the intended railway station at Maescefn-y-ffordd, on the Central Wales Railway, and six from the Mid-Wales Railway at Newbridge-on-Wye.

The slate vein runs up from the river to the top of the mountain to a height of 511 ft., is about half a mile in length, and 200 yards in width. Openings have been made in the vein, and although penetrated only to a few feet from the surface, it produces good slates. The metal and quality of the slate is strong and durable, will bear carriage to any part of the world, and stands the heat necessary for enamelling perfectly.

There is room for tipping rubbish for centuries, and a plentiful supply of water at all times of the year for machinery.

Apply to J. PRATT, Esq., land agent, Crickhowell.

NOBEL'S PATENT BLASTING OIL (NITRO-GLYCERINE).

**RAPID COMPLETING OF BLASTING OPERATIONS—** PERFECT SECURITY IN STORING AND CHARGING—TAMPING WITH WATER OR LOOSE SAND—GREAT SAVING IN LABOUR—viz.:

If the blasting of a certain quantity of rock requires 1000 feet of

| | | | | |
|---|---|---|---|---|
| 1 inch boring, at 4d. per foot | £1 | 13 | 4 | |
| And 15 lbs. of gunpowder, at 5d. per lb. | 0 | 6 | 3 | = £1 19 7 |
| We effect the same work with 10 ft. of 1 in. boring, at 4d. per foot | £0 | 3 | 4 | |
| And 1½ lbs. of nitro-glycerine, at 3s. per lb. | 0 | 4 | 6 | = 0 7 10 |
| Showing a saving of | | | | £1 11 9 |

COPY OF REPORT.

Royal Cornwall Polytechnic Society, Falmouth, Sept. 1, 1865.

THIRTY-THIRD ANNUAL EXHIBITION.—The judges consider Mr. Nobel's nitro-glycerine a very valuable explosive agent, possessing enormous power, and in addition the great advantage of not exploding except when confined. The small space which it occupies in proportion to its power renders it necessary to drive only one hole for the removal of immense masses of rock, thereby effecting a great saving of labour. As far as they can judge, the increase of power, as compared with gunpowder, will enable it to be used at a small a cost. The judges saw a wrought-iron anvil of about 3 cwts. blown to pieces with a charge less than 1 ounce in a three-quarter of an inch hole; and with a charge of 4 lbs. from 40 to 50 tons of rock was completely scattered, and the surrounding rock rent in all directions. It was computed that had the hole been less in diameter the same effect would have been produced, with a much smaller charge. They have much pleasure in awarding a first silver medal. (Signed) S. HODGES, Secretary.
To Mr. C. F. CUSEL, 64, Wood-street.

**BLASTING.**

AS NOW ADAPTED BY LENK'S PROCESS
**GUN COTTON**
IS THE CHEAPEST AND SAFEST EXPLOSIVE,
AND FREE FROM SMOKE.
Prices and directions for use on application to the Manufacturers,
THOMAS PRENTICE AND CO.,
173, FENCHURCH STREET, LONDON, E.C.
MANUFACTORY, STOWMARKET, SUFFOLK.

IMPROVED APPLICATION OF WATER-POWER.

**THE TURBINE.—MAC ADAM BROTHERS AND CO.,** ENGINEERS, SOHO FOUNDRY, BELFAST, have been engaged for 12 years, with complete success, in MANUFACTURING their IMPROVED TURBINES, and can recommend them with confidence.

This machine is applicable to all practicable heights of fall and quantities of water, giving a much higher percentage of power than any other description of water-wheels.

On low falls it has the additional advantage of not being affected by floods or backwater, and it is particularly well adapted for any falls where the quantity of water is variable.

Further particulars on application, also references to turbines now at work on a great variety of falls.

**THE CLUTCH SAFETY CAGE, IMPROVED.**—The improvement consists in its having only a single spring, which is strong enough to take the lift of the loaded cage; to overhaul the broken rope, however distant the fracture may be; and yet so conditioned that it cannot bring the clutches into play till the rope is broken. It is an ordinary carriage spring, and can be replaced, when needed, at any coach-work. Makers of cages, or inventors, who may wish to combine the safety clutch with their own improvements are respectfully informed that liberty to do so will be granted to them on easy terms.—Apply to the patentee, ROBERT ATTWOOD, 3, Fettes-row, Edinburgh.

Swan Rope Works.

**GARNOCK, BIBBY, AND CO.,**
CHAPEL STREET, LIVERPOOL,
MANUFACTURERS of FLAT and ROUND HEMP and IRON and STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.
MANILLA ROPE of SUPERIOR QUALITY, FIFTY PER CENT. STRONGER, and THIRTY PER CENT. CHEAPER than Russian hemp rope.
WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH.

**ASSAYS AND ANALYSES.—MR. JOSEPH GREEN,** for the past 14 years professional assayer to the Chester Goldsmiths' Company, UNDERTAKES the ASSAYING and ANALYSIS of EVERY DESCRIPTION of MINERAL.—Assay Office, Chester.

NICHOLLS, WILLIAMS, AND CO., ENGINEERS, BEDFORD IRONWORKS, TAVISTOCK.
MANUFACTURERS of STEAM ENGINES of EVERY DESCRIPTION, made on the BEST and NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the manufacture of our BOILERS, which have been tested by most of our leading engineers. PUMP WORK CASTINGS of EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and HEAVY SHAFTS of ANY SIZE. CHAINS made of the best iron, and warranted. RAILWAY WORK of EVERY DESCRIPTION.
ALL ORDERS FOR ABROAD RECEIVE their BEST ATTENTION. NICHOLLS, WILLIAMS, and Co. have had 20 years' experience in supplying machinery to foreign mines, and selecting experienced workmen to erect the same, where required.
Messrs. NICHOLLS, WILLIAMS, and Co. have always a LARGE STOCK of SECOND-HAND MINE MATERIALS in stock, and at moderate prices. 103

PATENT FLEXIBLE TUBING, AND BRATTICE CLOTH FOR MINES,
MANUFACTURED BY
ELLIS LEVER,
PATENTEE,
WEST GORTON WORKS, MANCHESTER. 104

TAVISTOCK IRONWORKS AND STEEL ORDNANCE COMPANY (LIMITED).
(LATE GILL AND CO.)
ENGINEERS, IRON AND BRASS FOUNDERS,
MANUFACTURERS OF
STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS. CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST AND HAMMERED IRON FOR MINING, MANUFACTURING, RAILWAY, OR AGRICULTURAL PURPOSES.
Machinery sent to all parts of the world.
Foreign mining companies supplied on liberal terms. 105

RAILWAY CARRIAGE COMPANY (LIMITED),
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.
Passenger carriages and wagons built, either for cash or for payment over a period of years.
RAILWAY WAGONS FOR HIRE.
CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES,—8, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER. 106

THE METROPOLITAN RAILWAY CARRIAGE AND WAGON COMPANY (LIMITED),
SALTLEY WORKS, BIRMINGHAM.
Successors to Messrs. JOSEPH WRIGHT and SONS.
MANUFACTURERS of RAILWAY CARRIAGES, WAGONS, and RAILWAY IRONWORK of every description.
RAILWAY CARRIAGES and WAGONS built for CASH, or upon DEFERRED PAYMENTS EXTENDING over a period of from THREE to TEN YEARS.
A large number of COAL, IRONSTONE, BALLAST, and other WAGONS to be LET ON HIRE.
MANUFACTORY AND CHIEF OFFICES—SALTLEY WORKS, BIRMINGHAM.
LONDON OFFICES—No. 8, ADAM STREET, ADELPHI, W.C. 107

THE BEVERLEY IRON AND WAGON COMPANY (LIMITED).
MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, WROUGHT and CAST IRON CARRIAGE and WAGON WHEELS, AXLES, HAMMERED BARS, and HEAVY SMITHS' WORK for ENGINEERS, &c. BRASS and IRON FOUNDERS. MAKERS of PORTABLE FARM RAILWAYS, TURNTABLES, CROSSINGS, SWITCHES, &c. AGRICULTURAL MACHINISTS. MANUFACTURERS of FIELD, ROAD, and BARN IMPLEMENTS, PATENT LORRY, CART, and CARRIAGE WHEELS, with WOOD or IRON NAVES. REAPING MACHINES, CLOD CRUSHERS, CORN MILLS, &c. SAW MILL PROPRIETORS. GENERAL TIMBER CONVERTERS for HOME and FOREIGN RAILWAYS, STATIONS, BARRACKS, EXHIBITIONS, &c.
IRONWORKS, BEVERLEY, YORKSHIRE.
JAMES DEWHIRST, Sec. 108

THE BIRMINGHAM WAGON COMPANY (LIMITED) MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.
EDMUND FOWLER, Sec.
OFFICES,—3, NEWHALL STREET, BIRMINGHAM. 109

LOCOMOTIVE, PORTABLE, and FIXED HORIZONTAL STEAM ENGINES, all sizes up to 24 in. cylinder, PUMPING and WINDING GEAR, MORTAR MILLS, SAW BENCHES, PORTABLE CRANES, &c., FOR SALE or HIRE.
ISAAC W. BOULTON, ASHTON-UNDER-LYNE. 110

HORIZONTAL ENGINES FOR SALE, at very low prices:—One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 8 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place Laurence Pountney-hill Cannon-street E.C. 111

Price 1s., by post 1s. 2d.,
SLATE QUARRIES AS AN INVESTMENT.
By JOHN BOWER, Esq., D.C.L., Barrister-at-Law, Managing Director of the Snowdon Slate Quarries Company (Limited).
London: Published at the MINING JOURNAL office, 26, Fleet-street, E.C., and sold by all booksellers and newsagents. 112

THE HARDWARE WEEKLY MESSENGER.
CHARLES RYLAND AND SONS' IRON TRADE CIRCULAR AND HARDWARE WEEKLY MESSENGER.
The "Iron Trade Circular" is eminently the business journal of the mining districts and the manufacturers and wholesale dealers in iron. Its information is authentic, unbiased, and complete, comprising not only the business news of the South and North Staffordshire district, but generally of the entire mining and manufacturing districts of the United Kingdom. It is now proposed to add a collection of special and general information in the interests of the Hardware Trades of Birmingham, Sheffield, and London, to be comprised in a department of the "Iron Trade Circular,' under the head of "The Hardware Weekly Messenger." Subscription:—

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|---|---|---|---|
| One year (post free) | £2 | 2 | 0 |
| Half-year (post free) | 1 | 1 | 0 |
| Quarter of a year (post free) | 0 | 10 | 6 |

Payable in advance.
Advertisements and orders to be addressed Union-passage Birmingham.
CHARLES RYLAND AND SONS, Iron and Metal Brokers. 113

THE STOCKTON AND HARTLEPOOL MERCURY AND MIDDLESBOROUGH NEWS (published at Hartlepool) is eminently the organ of the Coal, Iron, and Iron Ship-building Trades in the extensive Mining and Maritime District of South Durham and Cleveland, with which it has been closely identified since its origin. The "Mercury" was for years the only newspaper published in South Durham and Cleveland, and is yet the only one published more than once a week. Advertisements to be forwarded to the publisher, Mr. JOHN H. BELL, Southgate, Hartlepool.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764).
Published every Saturday, price 2d., or quarterly 2s. 2d.
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER.
Published every morning, price 1d.
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sunderland.

CLEVELAND'S WALNUT POMADE—IN CHANCERY—CAUTION.—Cleveland v. Heild, Cleveland v. Norton. Whereas a bill praying for an injunction restraining the defendants from pirating the plaintiff's labels and selling colourable imitations of his pomade, under the name of "Walnut Extract," has been filed, and an interim order granted by Vice-Chancellor Stuart; all parties are hereby warned that they will be prosecuted found selling colourable imitations aforesaid.
JAMES GRAYSON, 13, Great Ormond-street, Plaintiff's Solicitor.
Barclay, 95, Farringdon-street, agent for Cleveland's Walnut Pomade, and all chemists. 116

GREY HAIR.—CLEVELAND'S WALNUT POMADE will change grey hair to the original colour, darken red or light hair without staining the skin. It is not a dye, and does not injure the hair as dyes do. It gives it a rich glossy appearance, and nourishes its growth. As an ordinary pomade it is superior to all others, and although established 20 years no one has equalled although many have attempted to imitate it. Sold in pots at 1s. 6d., 2s. 6d., and 3s. 6d., by all the London chemists and perfumers.—Barclay, 95, Farringdon-street, wholesale agent. In ordering, order "Cleveland's." 117

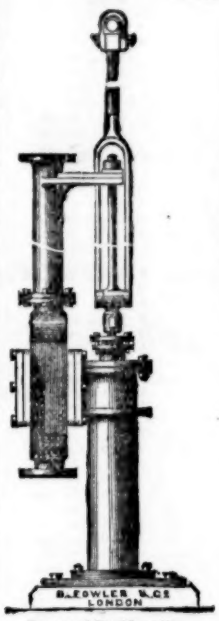
GREY HAIR AND BALDNESS.—LANARDO'S AMMONIACAL POMADE will change grey hair to its original colour, gradually darken red or light hair, and effectually remove baldness. Before purchasing send one stamp, and learn its chemical properties. Sold in sample pots at 1s., and ordinary at 2s., 10s., and 21s.—G. Sutton and Co., chemists, Store-street, Bedford-square. 118

FAIR SKIN.—CLEVELAND'S SKIN POWDER gives to the complexion, arms, and all parts of the body a rich delicate appearance, cools, strengthens, and stimulates the skin to a healthy action. In packets at 6d., 1s., and 2s. 6d. Order Cleveland's skin powder of your chemist or perfumer, and don't take any other.—Barclay, 95, Farringdon-street, wholesale agent. 119

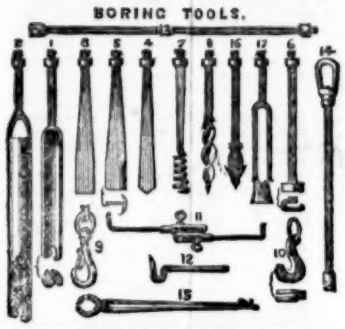
EPILEPSY, FITS, and NERVOUS DISEASES yield to the new chemical, PERCHLORATE OF POTASSA, which acts by oxydising the blood and strengthening the vitality of the nerves. An entirely new chemical, discovered, introduced, and extensively prescribed by the late Dr. M. Hall; it acts as an alterative, sedative, and stimulating tonic, supplying the blood with oxygen, and is now of unimversal repute. Try one bottle. Sold at 4s. 6d., 11s., and 22s., by Barclay, 95, Farringdon-street. Order Dr. Hall's perchlorate of potassa. 120

NEW MEDICAL GUIDE.
DR. SMITH, who has had twenty years' practical experience in the treatment of Debility, Spermatorrhœa, Disorders of the Nervous System, &c., has published A GUIDE (138 pages) for Self-Cure. Sent to any address on receipt of three stamps. Dr. SMITH may be consulted personally (or by letter) in all private and confidential cases.—Address, SMITH and Co., 8, Burton-crescent, Euston-road, London W.C. Consultations daily from Eleven to Five. 121

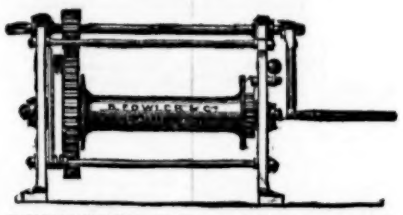
# CLINTON AND OWENS (LATE B. FOWLER AND CO.),
WHITEFRIARS STREET, FLEET STREET, LONDON,
HYDRAULIC AND GENERAL ENGINEERS,
MANUFACTURERS OF PUMPS OF EVERY DESCRIPTION FOR HAND, HORSE, STEAM, OR WATER POWER.

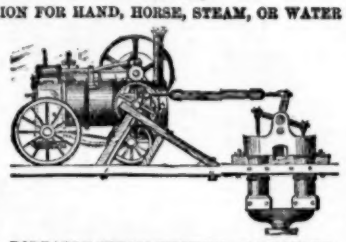


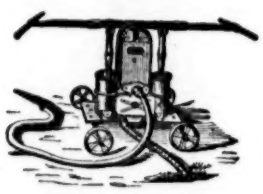
Improved Double-action PUMPS.

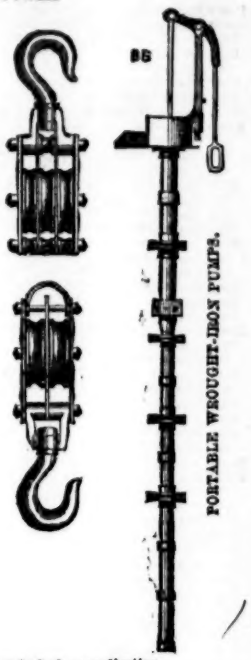


BORING TOOLS OF ALL DESCRIPTIONS, for Testing Ground and for Artesian Wells.


PULLEY BLOCKS, CRABS, and HOISTING TACKLE, of every description, and of superior manufacture.


PORTABLE STEAM ENGINES, with DOUBLE BARREL, or other PUMPS, for any depth, ON HIRE OR PURCHASE.
PORTABLE WROUGHT-IRON HAND PUMPS, of all sizes.


USEFUL DOUBLE BARREL PORTABLE FORCE PUMPS.

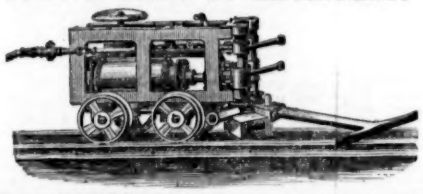

PORTABLE WROUGHT-IRON PUMPS.

PRICE LISTS, ESTIMATES, DRAWINGS, and FULL PARTICULARS of anything relating to work of classes noted above, may be had on application. 128

COAL CUTTING MACHINERY.—The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY to MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.
The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.
All communications to be made to Messrs. FIRTH, DONISTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

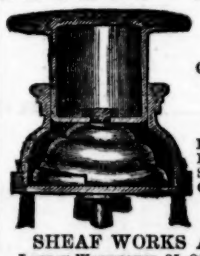
NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

COAL CUTTING BY MACHINERY.



MESSRS. RIDLEY AND CO. have, by recently PATENTED IMPROVEMENTS, COMPLETED their TRUNK COAL CUTTING MACHINE, WORKED by COMPRESSED AIR, and are NOW PREPARED to NEGOCIATE for the USE, and to SUPPLY MACHINES, which will be found to COMBINE SIMPLICITY of CONSTRUCTION with PORTABILITY and ECONOMY in WORKING. By the use of these machines a CONSIDERABLE SAVING of COAL is EFFECTED, and the COST of LABOUR MUCH REDUCED. Each machine will be guaranteed as to its capabilities, &c.
All applications to be made to Messrs. RIDLEY and Co., No. 11, South-street, Finsbury London, E.C.; or Mr. PERCY BANKART, agent, 9, Clement's-lane, E.C. 115
*** COLLIERY PROPRIETORS are CAUTIONED against PURCHASING or USING MACHINES, the construction of which will constitute an INFRINGEMENT of the ABOVE PATENT.

THOMAS TURTON AND SONS,
MANUFACTURERS OF
CAST STEEL for PUNCHES, TAPS, and DIES, TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and
FORGINGS of EVERY DESCRIPTION.



DOUBLE SHEAR STEEL,
BLISTER STEEL,
SPRING STEEL,
GERMAN STEEL.

FILES MARKED
T. TURTON.
EDGE TOOLS MARKED
WM. GREAVES & SON,

Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.
SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C., Where the largest stock of steel, files, tools, &c., may be selected from. 124

First Class Silver Medal, Royal Polytechnic Society, Falmouth, 1864.

CREASE'S PNEUMATIC TUNNELLING ENGINE, for SUPERSEDING the SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days.
Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.
Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE Tavistock Devon. 125

BASTIER'S PATENT CHAIN PUMP, APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects, farmers, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts, and unites lightness with a degree of durability almost imperishable. By means of this hydraulic machine water can be raised economically from wells of any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine as daily demonstrated by use:—
1.—It utilises from 90 to 92 per cent. of the motive power.
2.—Its price and expense of installation is 75 per cent. less than the usual pumps employed for mining purposes.
3.—It occupies a very small space.
4.—It raises water from any depth with the same facility and economy.
5.—It raises with the water, and without the slightest injury to the apparatus, sand mud, wood, stone, and every object of a smaller diameter than its tube.
6.—It is easily removed, and requires no cleaning or attention.
BASTIER'S PATENT CHAIN-PUMP may be seen daily in operation at Messrs. SAMUEL BERGER AND Co.'s Patent Rice Starch Works, Bromley-by-Bow, London, E. Cards of admission to be had on application to the inventor and patentee, Mr. J. U. BASTIER, C.E., 142, Gower-street North, London.
J. U. BASTIER, sole manufacturer, will CONTRACT to ERECT his PATENT PUMP at HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE of his INVENTION.
OFFICES, 142, GOWER STREET NORTH, LONDON.
London, March 21, 1859. Hours from Ten till Four. J. U. BASTIER C.E. 126

MR. BRENTON SYMONS INSPECTS and REPORTS on ANY MINERAL PROPERTY. In all cases where procurable a plan will accompany his report.—15, Hatton-garden, E.C. 127

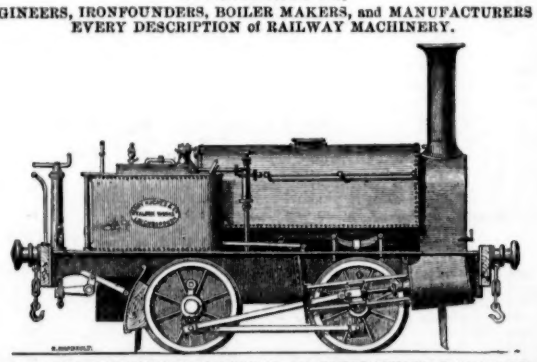
International Exhibition, 1862—Prize Medal.


JAMES RUSSELL AND SONS (the original patentees and first makers of wrought-iron tubes), of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, have been AWARDED a PRIZE MEDAL for the "good work" displayed in their wrought-iron tubes and fittings.
Warehouse, 81, Upper Ground-street, London, S. 129

BICKFORD'S PATENT SAFETY-FUSE OBTAINED the PRIZE MEDALS at the ROYAL EXHIBITION of 1851, at the INTERNATIONAL EXHIBITION of 1862, in London, and at the IMPERIAL EXPOSITION, held in Paris, in 1855.

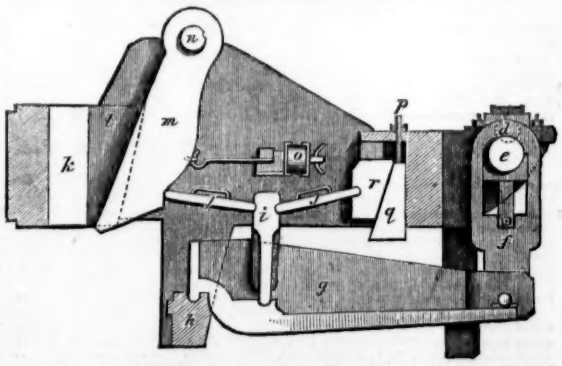

BICKFORD, SMITH, AND CO., TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK. 130

HENRY HUGHES AND CO.,
FALCON RAILWAY PLANT WORKS,
LOUGHBOROUGH,
ENGINEERS, IRONFOUNDERS, BOILER MAKERS, and MANUFACTURERS of EVERY DESCRIPTION of RAILWAY MACHINERY.



LOCOMOTIVE ENGINES, for MINERAL and CONTRACTORS' RAILWAYS, of the best materials and workmanship, always in progress. These engines are designed to supply the chief requisites in tank locomotives—viz., reduction of the overhanging weight at the fire-box end, proper distribution of the weight upon the wheels, and keeping the centre of gravity low. These are accomplished by making the fire-box and its shell on an improved principle, which enables the driving axle to be placed further back without interfering with the eccentrics and valve gear, which are of the usual simple description. LONDON OFFICES, 34, CANNON STREET WEST. 131

BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,
FOR REDUCING TO SMALL FRAGMENTS ROCKS ORES, AND MINERALS OF EVERY KIND.



It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England.
The above section illustrates Blake's Stone Breaker, just as made the last five years and is fully protected in every part by patents.
Extract from Specification:—A short but powerful vibration is imparted to one or both of the jaws by any convenient arrangement, and combination of powerful levers, worked by a crank or eccentric on the main shaft.
LEGAL PROCEEDINGS will be taken at once against any person or persons found making, using, or vending any machine, the construction of which will constitute an infringement on the above patent. Read extracts of testimonials:—
*Alkali Works, near Wednesbury.*—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.
*Welsh Gold Mining Company, Dolgelly.*—The stone breaker does its work admirably crushing the hardest stones and quartz. WM. DANIEL.
Our 15 by 7 in. machine has broken 4 tons of hard winstone in 20 minutes, for fine road metal, free from dust. Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.
*Kirkless Hall, near Wigan.*—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCESTER.
*Ovoca, Ireland.*—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS
*General Frémont's Mines, California.*—The 15 by 7 in. machine effects a saving o the labour of about 30 men, or $75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate. SILAS WILLIAMS
For circulars and testimonials, apply to—
H. R. MARSDEN, SOHO FOUNDRY,
MEADOW LANE, LEEDS.
Only maker in the United Kingdom. 132

# THE MINING SHARE LIST

## BRITISH DIVIDEND MINES.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Total divs. | Per Share. | Last paid |
|---|---|---|---|---|---|---|---|
| 1200 | Alderley Edge (cop.), Cheshire [L.] | 10 0 0 | — | | 11 3 0 | 0 15 0 | Dec. 1864 |
| 4000 | Bedford United (copper), Tavistock† | 2 6 8 | 1¼ | | 13 11 6 | 0 2 6 | Oct. 1861 |
| 1248 | Boscaswell (tin, copper), St. Just | 6 15 0 | — | | 1 5 0 | 0 5 0 | May, 1864 |
| 200 | Botallack (tin, copper), St. Just | 91 5 0 | — | | 483 15 0 | 3 0 0 | Aug. 1865 |
| 10000 | British Slate Company [L.] | 7 0 0 | — | | 9 per cent. | | Aug. 1865 |
| 1600 | Brixham Hematite Iron [L. £8] | 6 7 6 | — | | 0 6 0 | 0 6 0 | Nov. 1864 |
| 1000 | Bronfloyd (lead), Cardigan [L. £15] | 12 0 0 | — | | 6 15 0 | 0 10 0 | July, 1865 |
| 1200 | Bryn Gwyn (lead), Mold, [L.] | 9 0 0 | — | | 3 3 6 | 0 13 6 | Aug. 1865 |
| 916 | Cargoll (silver-lead), Newlyn | 15 5 7 | 32 | 30 32 | 11 15 0 | 1 0 0 | Aug. 1865 |
| 1400 | Carn Brea (copper, tin), Illogan | 15 0 0 | — | | 280 10 0 | 2 0 0 | June, 1864 |
| 2880 | Clifford Amalgamated (cop.), Gwen. | 30 0 0 | 22 | 17½ 18½ | 35 6 0 | 0 10 0 | June, 1865 |
| 2000 | Copper Miners of England | 25 0 0 | — | | 7½ per cent. | | Half-yrly. |
| 40000 | Ditto ditto (stock) | 100 0 0 | — | | 1 per cent. | | Half-yrly. |
| 867 | Cwm Erfin (lead) Cardiganshire [L.] | 7 10 0 | — | | 16 18 0 | 1 0 0 | June, 1865 |
| 128 | Cwmystwith (lead), Cardiganshire* | 60 0 0 | — | | 288 10 0 | 5 0 0 | July, 1865 |
| 280 | Derwent Mines (sil.-lead), Durham | 300 0 0 | — | | 159 10 0 | 7 10 0 | June, 1865 |
| 1024 | Devon Gt. Con. (cop.), Tavist.* [S.E.] | 1 0 0 | — | | 981 0 0 | 9 0 0 | July, 1865 |
| 358 | Dolcoath (copper, tin), Camborne* | 128 17 6 | — | | 800 10 0 | 4 0 0 | Aug. 1865 |
| 512 | East Basset (cop.), Redruth [S.E.]* | 29 10 0 | 15 | 24½ 25½ | 126 0 0 | 1 0 0 | Nov. 1864 |
| 6000 | East Carn Brea (copper), Redruth | 3 15 0 | 6 | 5¾ 6 | 0 5 0 | 0 5 0 | June, 1865 |
| 6144 | East Caradon (copper), St. Cleer [S.E.] | 2 14 6 | 12¼ | 12 13 | 13 12 0 | 0 10 0 | July, 1865 |
| 300 | East Darren (lead), Cardiganshire* | 32 0 0 | — | | 107 10 0 | 2 0 0 | Aug. 1865 |
| 128 | East Pool (tin, copper), Pool, Illogan | 24 5 0 | 400 | 410 430 | 369 10 0 | 4 0 0 | June, 1864 |
| 5000 | East Rosewarne (cop., tin), Gwinear | 2 15 0 | 2½ | 2⅛ 2⅜ | 0 7 0 | 0 2 6 | May, 1865 |
| 2800 | Foxdale (lead) Isle of Man [L.] | 25 0 0 | — | | 67 0 0 | 1 0 0 | May, 1865 |
| 5000 | Frank Mills (lead), Christow | 3 18 6 | 7 | 6⅜ 6⅝ | 2 13 6 | 0 6 0 | Aug. 1865 |
| 15000 | Great Laxey (lead), Isle of Man [L.] | 4 0 0 | 22 | 21½ 22½ | 2 11 0 | 0 10 0 | June, 1865 |
| 5908 | Great Wh. Vor (tin, cp.), Helston [S.E.] | 40 0 0 | 35½ | 35 36 | 6 19 6 | 0 17 6 | June, 1865 |
| 119 | Great Work (tin), Germoe | 100 0 0 | — | | 15 0 0 | 5 0 0 | Aug. 1864 |
| 1024 | Herodsfoot (ld.), near Liskeard [S.E.] | 8 10 0 | 41 | 38 40 | 33 5 0 | 1 15 0 | June, 1865 |
| 400 | Lisburne (lead), Cardiganshire, Wales* | 18 15 0 | — | | 435 10 0 | 3 0 0 | Aug. 1865 |
| 2000 | Maes-y-Safn (lead) [L] | 20 0 0 | — | | 1 0 0 | 1 0 0 | Oct. 1864 |
| 9000 | Marke Valley (copper), Caradon | 4 10 6 | 4¼ | | 3 2 6 | 0 2 0 | July, 1865 |
| 3000 | Minera Boundary (lead), Wrexham [L.] | 1 0 0 | — | | 0 8 0 | 0 2 0 | June, 1865 |
| 1800 | Minera Mining Co. [L.], (ld.), Wrexham | 25 0 0 | — | | 181 18 0 | 6 15 0 | Aug. 1865 |
| 20000 | Mining Co. of Ireland (cop., lead, coal) | 7 0 0 | — | 18½ 19 | 19 2 10 | 0 16 1 | Jan. 1865 |
| 40000 | Mwyndy (iron ore) [L. £4] [S.E.] | 2 10 0 | — | | 0 4 0 | 0 2 0 | April, 1864 |
| 250 | Nanty Mines (lead), Montgomery | 20 0 0 | — | | 7 0 0 | 1 0 0 | June, 1864 |
| 6000 | New Birch Tor and Vitifer Cons. (tin) | 1 6 6 | — | | 0 11 0 | 0 1 6 | Oct. 1864 |
| 5936 | North Treskerby (copper), St. Agnes | 1 9 0 | 2¼ | 1⅞ 2⅛ | 0 13 0 | 0 2 6 | Feb. 1864 |
| 200 | Parys Mines (copper), Anglesey [L.] | 50 0 0 | — | | 147 0 0 | 5 0 0 | Aug. 1865 |
| 1120 | Providence (tin), Uny Lelant† [S.E.] | 10 6 7 | 34 | 31 33 | 78 7 6 | 1 0 0 | Aug. 1865 |
| 30 | Silver Rake Mining Company | 280 0 0 | — | | — | 2 10 0 | Dec. 1864 |
| 512 | South Caradon (cop.), St. Cleer* [S.E.] | 1 5 0 | — | | 490 10 0 | 7 0 0 | July, 1865 |
| 4000 | St. Day United (tin), Redruth | 14 0 0 | — | | 0 5 0 | 0 5 0 | Mar. 1864 |
| 6000 | Tincroft (cop. tin), Pool, Illogan [S.E.] | 9 0 0 | 18½ | 17½ 18 | 17 1 0 | 0 10 0 | June, 1865 |
| 6000 | West Basset (copper), Illogan [S.E.] | 1 10 0 | — | | 26 14 0 | 0 5 0 | July, 1865 |
| 3000 | W. Chiverton, (ld.), Perranzabuloe [S.E.] | — | 75 | 70 75 | 6 15 0 | 1 5 0 | Aug. 1865 |
| 256 | West Damsel (copper), Gwennap | 38 10 0 | — | | 63 10 0 | 1 0 0 | Nov. 1864 |
| 400 | W. Wh. Seton (cop.), Camborne [S.E.]* | 47 10 0 | 170 | 165 170 | 437 0 0 | 4 0 0 | Aug. 1865 |
| 512 | Wheal Basset (copper), Illogan* [S.E.] | 5 2 6 | 80 | 75 80 | 611 0 0 | 1 10 0 | Aug. 1865 |
| 1024 | Wheal Friendship (copper), Devon | 20 0 0 | — | | 296 10 0 | 1 0 0 | May, 1865 |
| 512 | Wheal Jane (silver-lead), Kea | 3 10 0 | 15 | | 15 0 0 | 0 10 0 | Aug. 1864 |
| 4295 | Wheal Kitty (tin), St. Agnes | 5 4 6 | 3¾ | | 2 11 6 | 0 2 6 | Aug. 1865 |
| 1024 | Wh. Mary Ann (ld.), Menheniot [S.E.] | 8 0 0 | 5 | 4 5 | 59 17 6 | 0 10 0 | Mar. 1865 |
| 100 | Wheal Mary (tin), Lelant | 36 2 6 | — | | 288 5 0 | 4 0 0 | Mar. 1864 |
| 80 | Wheal Owles (tin), St. Just, Cornwall | 70 0 0 | — | | 343 3 0 | 5 0 0 | May, 1864 |
| 396 | Wheal Seton (tin, copper), Camborne | 58 10 0 | 195 | 190 200 | 206 15 0 | 5 0 0 | Aug. 1865 |
| 1040 | Wh. Trelawny (sil.-ld.), Liskeard [S.E.] | 5 17 0 | 18 | 17 18 | 52 0 0 | 0 10 0 | June, 1865 |
| 7000 | Wicklow (copper) [L.], Wicklow | 2 10 0 | 13¾ | 14⅛ 14¼ | 15 3 0 | 0 6 0 | May, 1865 |

[* Dividends paid every two months. † Dividends paid every three months.]

## BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Total divs. | Per Share. | Last paid |
|---|---|---|---|---|---|---|---|
| 240 | Boscean (tin), St. Just | 20 10 0 | — | | 36 10 0 | 1 0 0 | Mar. 1862 |
| 256 | Condurrow (cop., tin), Camborne | 76 10 0 | — | 80 90 | 85 0 0 | 2 0 0 | June, 1852 |
| 2450 | Cook's Kitchen (copper), Illogan | 18 18 9 | 8¾ | 8 9 | 1 7 0 | 0 7 0 | May, 1867 |
| 1024 | Copper Hill (copper), Redruth | 12 0 0 | — | | 2 7 6 | — | Sept. 1862 |
| 1055 | Craddock Moor (copper), St. Cleer | 9 1 0 | — | | 7 12 0 | 0 4 0 | June, 1865 |
| 4076 | Devon and Cornwall (cop.), Tavistock | 6 6 3 | — | | 0 10 0 | 0 2 6 | Feb. 1859 |
| 12800 | Drake Walls (tin, copper), Calstock | 2 1 0 | — | | 0 18 0 | 0 1 6 | May, 1863 |
| 3000 | Dyfngwm (lead), Wales | 12 6 6 | — | | 0 17 6 | 0 2 6 | Jan. 1863 |
| 1906 | East Wheal Lovell (tin), Wendron | 3 9 0 | 13½ | 12¾ 13¼ | 1 10 0 | 0 16 0 | May, 1864 |
| 940 | Fowey Consols (copper), Tywardreath | 4 11 6 | — | | 41 9 3 | 0 2 6 | June, 1860 |
| 6000 | Great South Tolgus (copper), Redruth | 0 14 6 | 1⅝ | | 7 18 6 | 0 5 0 | Dec. 1861 |
| 10240 | Gunnislake (Clitters' Adit) (copper) | 0 2 0 | — | | 0 3 0 | 0 1 6 | Mar. 1862 |
| 160 | Levant (copper, tin), St. Just | 2 10 0 | — | | 1091 0 0 | 5 0 0 | May, 1860 |
| 640 | Mount Pleasant (lead), Mold | 4 0 0 | — | | 18 18 1 | 0 7 6 | Aug. 1862 |
| 5000 | Orsedd (lead), Flintshire | 0 0 8 | — | | 0 10 4 | 0 0 8 | Mar. 1862 |
| 1772 | Polberro (tin), St. Agnes | 15 0 0 | — | | 7 19 6 | 0 10 0 | Nov. 1863 |
| 512 | Polbreen (tin), St. Agnes | 8 0 0 | — | | 1 0 0 | 1 0 0 | July, 1863 |
| 6000 | Rosewall Hill and Ransom United | 3 6 0 | — | | 0 10 0 | 0 1 6 | June, 1863 |
| 512 | South Tolgus (cop.), Redruth | 8 0 0 | 12 | 12 13 | 74 10 0 | 1 0 0 | May, 1863 |
| 496 | S. Wh. Frances (cop.), Illogan [S.E.] | 18 18 9 | — | 12¼ 15 | 370 13 6 | 1 0 0 | Nov. 1863 |
| 280 | Spearne Moor (tin, copper), St. Just | 3 17 9 | — | | 9 15 0 | 1 0 0 | June, 1862 |
| 940 | St. Ives Consols (tin), St. Ives | 8 15 0 | — | | 490 10 0 | 0 10 0 | May, 1864 |
| 572 | Trelyon Consols (tin), St. Ives | 15 0 0 | — | | 7 0 0 | 0 10 0 | Sept. 1864 |
| 1000 | Trumpet Consols (tin), near Helston | 11 10 0 | — | | 11 0 0 | 2 0 0 | Mar. 1860 |
| 4200 | Vigra and Clogau (copper) [L. £5] | 5 0 0 | — | | 6 2 6 | 1 10 0 | Mar. 1862 |
| 1024 | West Caradon (cop.), Liskeard [S.E.] | 11 0 0 | 9⅛ | 8½ 9⅛ | 101 1 3 | 0 10 0 | Oct. 1862 |
| 1000 | Wheal Basset and Gryllis (tin) | 7 0 0 | — | | 3 0 0 | 0 10 0 | Oct. 1863 |
| 1024 | Wheal Kitty (tin), Uny Lelant [S.E.] | 3 0 6 | 7 | 7 7⅛ | 10 2 6 | 0 7 6 | July, 1864 |
| 896 | Wheal Margaret (tin), Uny Lelant | 13 17 6 | — | | 76 5 0 | 1 0 0 | May, 1863 |
| 2044 | Wheal Tremayne (tin), Gwinear | 6 11 3 | — | | 6 1 3 | 0 5 0 | Nov. 1863 |
| 6400 | West Fowey Consols (tin and copper) | 7 10 0 | — | | 0 19 0 | 0 3 0 | May, 1862 |
| 8000 | Wharfedale Mining Company [L. 10s.] | 0 5 6 | — | | — | 0 0 6 | Jan. 1864 |

## FOREIGN DIVIDEND MINES.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Total divs. | Per Share. | Last paid |
|---|---|---|---|---|---|---|---|
| 2464 | Burra Burra (cop.), South Australia | 5 0 0 | — | | 320 0 0 | 5 0 0 | Sept. 1864 |
| 15000 | Cape Copper Mining [L. £10] [S.E.] | 7 0 0 | 10¾ | 10⅛ 11 | 2 2 6 | 0 17 6 | June, 1865 |
| 12000 | Cobre Copper Co. (cop.), Cuba [S.E.] | 40 0 0 | 22 | 20 22 | 101 0 0 | 1 0 0 | Jan. 1865 |
| 70000 | English and Australian | 5 0 0 | — | | 1 12 0 | 0 2 0 | Aug. 1864 |
| 15000 | East Indian Coal, Calcutta [L.] | 10 0 0 | — | | 7½ per cent. | — | Yearly. |
| 25000 | Fortuna (lead), Spain [L.] [S.E.] | 2 0 0 | 2⅛ | | 0 14 4 | 0 3 0 | Dec. 1864 |
| 25000 | Gen. Mining Assoc., Nova Scotia [S.E.] | 20 0 0 | 23 | 21 23 | 21 10 0 | 1 0 0 | June, 1864 |
| 68000 | Kapunda Mining Co., Australia [S.E.] | 1 0 0 | — | | 0 12 0 | 0 1 0 | June, 1864 |
| 15000 | Linares (lead), Spain [L.] [S.E.] | 3 0 0 | 3⅛ | | 11 6 4 | 0 5 0 | Jan. 1865 |
| 10000 | Lusitanian (Portugal) [S.E.] | 2 0 0 | — | | 1 7 0 | 0 3 0 | June, 1865 |
| 9275 | New Wildberg (copper) | 2 0 0 | — | | 0 10 0 | 0 10 0 | Aug. 1864 |
| 50000 | Panulcillo (copper) [L. £4] [S.E.] | 3 0 0 | 4⅛ | 3¾ 4¼ | 10 per cent. | — | Yearly. |
| 10000 | Pontgibaud (sil.-lead), France [S.E.] | 20 0 0 | 9 | 8 9 | 2 3 0 | 0 16 0 | Dec. 1864 |
| 97500 | Port Phillip (gold), Clunes [S.E.] | 1 0 0 | 1¼ | 1 1¼ | 0 13 6 | 0 1 0 | July, 1865 |
| 11000 | St. John del Rey [L.], Brazil [S.E.] | 15 0 0 | 43 | 41 43 | 63 15 0 | 2 10 0 | June, 1864 |
| 43174 | United Mexican (sil.), Mexico [S.E.] | 28 5 0 | 4 | 3 3¼ | 2 19 0 | 0 5 0 | Sept. 1864 |
| 10000 | Vancouver (coal) [L. £10] | 5 0 0 | — | | 0 15 0 | 0 5 0 | Nov. 1864 |
| 50000 | Victoria (London) [L.] [25000 £1 pd., 25000 7s. 6d. pd.] | | | | 5 per cent. | — | |
| 40000 | West Canada Mining Co. [L.] [S.E] | 1 0 0 | — | | 0 19 6 | 0 2 6 | May, 1865 |

## FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Total divs. | Per Share. | Last paid |
|---|---|---|---|---|---|---|---|
| 10000 | Alten and Quænangen Uni. (cop.) [L. £5] | 4 10 0 | — | | 4 5 0 | 0 15 0 | Nov. 1853 |
| 20000 | Australian (cop.), S. Australia [S.E.] | 7 7 6 | — | | 0 1 0 | 0 1 0 | Dec. 1863 |
| 6000 | Central American (silver) [L.] | 5 0 0 | — | | 4 6 8 | 0 14 10 | Dec. 1863 |
| 10000 | Copiapo Mining Company, Chili [S.E.] | 16 0 0 | — | | 6 18 0 | 0 10 0 | Nov. 1862 |
| 100000 | Don Pedro No. Del Rey [L. £1] [S.E.] | 0 12 6 | — | | 0 0 9 | 0 0 9 | Dec. 1863 |
| 103815 | Mariquita and New Granada [S.E.] | 1 0 0 | — | | 0 9 6 | 0 1 6 | July, 1859 |
| 45000 | Yudanamutana (cop.), S.A. L.] [S.E.] | 3 0 0 | 1⅛ | 1 1¼ | 0 5 0 | 0 5 0 | Aug. 1863 |

## NON-DIVIDEND FOREIGN MINES.

| Shares. | Mines. | Paid. | Last Pr. | Bus. done. | Last Call. |
|---|---|---|---|---|---|
| 35000 | Alamillos (lead), Spain] L. £2] [S.E.] | 1 10 0 | 1¼ | 1⅛ 1¾ | April, 1865 |
| 100000 | Anglo-Brazilian (gold) [L. £1] [S.E.] | 0 6 0 | — | | Dec. 1863 |
| 20000 | Beariz Tin Streaming Company [L. £1] | 0 17 6 | — | | Oct. 1863 |
| 25000 | Capula (silver), Mexico [L. £2] [S.E.] | 1 5 0 | — | | Feb. 1864 |
| 10000 | Copiapo Smelting [L.], Chili | 10 0 0 | — | | Fully paid. |
| 75000 | Dun Mountain (copper), New Zealand [L.] [S.E.] | 1 0 0 | — | | Fully paid. |
| 50000 | East del Rey (gold), Brazil [L. £3] [S.E.] | 2 5 0 | 1¼ | 1⅛ 1¼ | April, 1865 |
| 15000 | El Chico Silver Mining and Reduction Company [L. £5] | 4 0 0 | — | | Aug. 1865 |
| 8000 | English and Canadian Mining Company [L.] | 5 0 0 | — | | Fully paid. |
| 40000 | Fortune (copper), West Australia [L.] | 2 0 0 | — | | Fully paid. |
| 50000 | Frontino and Bolivia (gold), New Granada [L. £2] [S.E.] | 1 0 0 | 3⅝ | 3⅛ 3¾ | Mar. 1865 |
| 10000 | Gonnesa (lead) [L.] [5000 £5 paid, 5000 £1 paid] | — | — | | May, 1865 |
| 80000 | Great Northern (copper), South Australia [L. £2] [S.E.] | 1 10 0 | — | | June, 1862 |
| 10000 | Great Barrier Land, Mining, &c., New Zealand [L.] | 5 0 0 | — | | Fully paid. |
| 24000 | Hindostan (copper), Bengal [L. £5] | 3 0 0 | — | | Feb. 1863 |
| 4000 | Hope Silver-Lead and Copper Mining Co. [L.], Jamaica | 25 0 0 | — | | Fully paid. |
| 100000 | Montes Aureos (gold), Brazil [L.] [S.E.] | 2 0 0 | ⅞ | ⅝ | Fully paid. |
| 12000 | Nerbudda Coal and Iron [L. £20] [6000 £5 pd., 6000 £3 pd.] | — | — | | Aug. 1865 |
| 50000 | Nova Scotia (land and gold) [L. £2] | 1 0 0 | — | | Nov. 1862 |
| 10000 | Otea (copper) New Zealand [L. £2] | 1 0 0 | — | | Mar. 1865 |
| 15000 | Pachuca Silver Mining Company, Mexico [L. £1] | 1 0 0 | — | | June, 1863 |
| 6000 | Peel River Land and Mineral [Limited] | 100 0 0 | — | | Stock. |
| 28000 | Quebrada (copper), Venezuela [L. £10] | 7 10 0 | — | | Sept. 1864 |
| 10178 | Rhenish Consolidated (lead) [6000 £5 paid, 4178 30s. paid.] | — | — | | Mar. 1865 |
| 50000 | Rossa Grande (gold), Brazil [L. £1] [S.E.] | 0 5 0 | — | | April, 1864 |
| 10000 | San Roque (lead), Spain | 5 0 0 | — | | Fully paid. |
| 60000 | Santa Barbara (gold), Brazil [L. £1] | 0 17 6 | ⅝ | | Aug. 1865 |
| 20000 | Scottish Australian Mining Company [L. £1] | 0 17 6 | — | | Feb. 1864 |
| 15000 | South Europe Mining Company, Spain [L. £5] | 5 0 0 | — | | Fully paid. |
| 12000 | Teplitz Colliery Co., Bohemia [L. £5] | 3 0 0 | — | | June, 1863 |
| 30000 | Val Antigoria (gold) [L. £2] | 0 10 0 | 1⅜ | ⅞ 1⅛ | |
| 6000 | Val Sassam (silver, copper, and lead) [L. £10] | 4 0 0 | — | | July, 1865 |
| 5000 | Valgodemard Mining Company [L. £20] | 15 0 0 | — | | Mar. 1865 |
| 50000 | Vallanzasca (gold), Italy [L. £1] [S.E.] | 0 10 0 | 2⅜ | | Oct. 1864 |
| 45000 | Victor Emanuel (copper), Italy [L.] | 1 0 0 | — | | Fully paid. |
| 20000 | Washoe (gold) [10000 £5 paid, 10000 £3 paid] | — | — | | |
| 1000 | Western Africa Malachite (copper) [L.] | 110 0 0 | — | | Oct. 1865 |
| 12000 | Wheal Ellen (copper), South Australia [L.] | 5 0 0 | — | | Fully paid. |
| 80000 | Worthing (copper), South Australia [L.] [S.E.] | 1 0 0 | 1 | | Fully paid. |
| 75000 | Yorke Peninsula, South Australia [L.] | 1 0 0 | — | | Fully paid. |

## PROGRESSIVE MINES.

| Shares | Mines. | Paid. | Last Pr. | Bus. done. | Last Call. |
|---|---|---|---|---|---|
| 700 | Aberdovey (sil.-lead), Merio. | 4 10 0 | — | | Nov. 1864 |
| 1000 | Alt-y-Crib (lead) [L.] | 5 0 0 | — | | Fully paid. |
| 4000 | Bedford Cons. (cop.), Tavistk. | 2 11 6 | — | | Feb. 1865 |
| 3200 | Bedol Aur (lead), Holywell | 0 16 0 | ⅝ | | May, 1865 |
| 500 | Billins (lead) | 30 0 0 | — | | Fully paid. |
| 6000 | Boscawen (tin), Kenwyn | 2 15 0 | — | | Jan. 1865 |
| 5000 | Bottle Hill (tin) Plympton | 1 10 6 | 11s. | | Mar. 1865 |
| 30000 | Bromlow (ld.), Minsterley, Salop | 1 0 0 | — | | Fully paid. |
| 200 | Brynford Hall (lead), Flint | 25 0 0 | — | | May, 1865 |
| 500 | Bryn Gwiog (lead), Flint | 9 0 0 | — | | June, 1864 |
| 1832 | Bryntail (lead), Llanidloes | 9 3 6 | — | | July, 1865 |
| 30000 | Caldbeck Fells (tin) [L. £2] | 0 10 0 | — | | |
| 12000 | Calstock Consols (copper) | 2 10 0 | — | | |
| 1000 | Camborne Consols (copper) | 18 10 0 | — | | Feb. 1864 |
| 4600 | Camborne Vean & Wh. Francis | 10 18 4 | — | ¼ ⅜ | June, 1865 |
| 75000 | Cambrian Consolid. (gd.) [L. £2] | 1 0 0 | — | | Aug. 1862 |
| 8000 | Cape Cornwall (cop.), [L. £2 10s.] | 1 15 0 | — | | July, 1865 |
| 12000 | Caradon & Phœnix Cons. [L. £1] | 0 12 0 | — | | April, 1865 |
| 914 | Caradon Cons. (cop.), St. Cleer | 29 13 6 | — | | April, 1865 |
| 6000 | Carn Camborne (cop.), Cambn. | 1 17 0 | 1 | | July, 1865 |
| 6000 | Carnglaze Untd. (tin), St. Just | 0 10 0 | — | | |
| 2048 | Carnyorth (tin), St. Just | 4 15 0 | — | | Dec. 1864 |
| 20000 | Carysfort [3200 £2½ pd., 16800 £1⅛ pd.] | | — | | Mar. 1865 |
| 2500 | Cefn Cilcen (ld.), Flint [L. £5] | 2 12 0 | — | | Mar. 1865 |
| 800 | Cefn Cwm Brwyno (lead) | 4 0 0 | — | | Sept. 1864 |
| 2500 | Central Minera (lead) [L. £5] | 2 17 0 | — | | May, 1865 |
| 3000 | Chiverton (lead), Perranzabu. | 7 0 0 | 8⅛ | 8 8⅛ | Aug. 1865 |
| 3000 | Chiverton Moor (lead) | 3 10 0 | — | | Aug. 1865 |
| 4000 | Clara Unit., Ponterwyd [L. £3] | 2 10 0 | — | | July, 1865 |
| 3072 | Cleer's Hill (tin), St. Stephen's | 0 1 4 | — | | July, 1864 |
| 5000 | Cleveland (iron), [L. £20] | 10 0 0 | — | | Mar. 1865 |
| 787 | Clijah & Wentworth (tin, cp.) | 34 0 0 | — | | July, 1865 |
| 3000 | Clowance Wood (cop.) [L. £5] | 3 10 0 | — | | April, 1865 |
| 16000 | Coolartra & Bond [L.] [5300 £1 pd., 10700 16s. pd.] | | | | Feb. 1865 |
| 50000 | Connorree (cop., sulph.) [L.] | 1 0 0 | 21s. | 21s. 22s. | Fully paid. |
| 6500 | Cornish Clay and Tin [L.] | 1 0 0 | — | | Fully paid. |
| 12000 | Cornubia (tin) [L. £3] [4000 30s. pd., 8000 15s. pd.] | | | | |
| 861 | Crane (copper), Camborne | 28 17 0 | — | | June, 1865 |
| 30000 | Crenver and Wh. Abraham [L.] | 3 5 0 | — | | June, 1865 |
| 12000 | Crelake (cop.), Tavistock | 2 13 0 | — | | April, 1864 |
| 2500 | Crowan Consols (cop.) Crowan | 5 6 0 | — | | July, 1865 |
| 8000 | Crowan & Wendron (tin), [L. £1] | 0 2 6 | — | | |
| 1428 | Crowlwm (lead), Llanidloes | 1 13 0 | — | | Dec. 1864 |
| 6000 | Cuddra (cop., tin), St. Austell | 4 12 6 | — | | Sept. 1865 |
| 10000 | Cwmsymlog (sil.-ld.), [L. £5] | 2 0 0 | — | | May, 1864 |
| 35000 | Dale (lead), North Stafford | 1 0 0 | — | | Fully paid. |
| 1000 | Darren (lead) [L.], Cardigan | 9 4 0 | — | | July, 1865 |
| 672 | Ding Dong (tin), Gulval | 44 10 6 | — | | Dec. 1863 |
| 20000 | Dolfrwynog (gold) [L. £1] | 0 15 0 | — | | June, 1864 |
| 1000 | Eaglebrook (lead) [L. £20] | 17 19 0 | — | | Feb. 1865 |
| 1000 | East Basset and Gryllis (tin) | 3 5 0 | — | | July, 1865 |
| 6000 | E. Bottle Hill (tin), Plympton | 0 5 6 | — | | May, 1865 |
| 2000 | East Buller (copper) | 2 0 0 | — | | Mar. 1865 |
| 50000 | East Cambrian (gold) [L. £1] | 1 0 0 | — | | Fully paid. |
| 2000 | East Chiverton (lead) | 3 13 0 | — | | Aug. 1865 |
| 2048 | E. Falmouth (s.-ld.), Kenwyn | 5 0 6 | — | | April, 1864 |
| 6000 | E. Grenville (cop.), Camborne | 2 16 0 | 2¾ | 2⅝ 2⅞ | Aug. 1865 |
| 6000 | E. Gt. Work (tin), Breage [L. £5] | 4 0 0 | — | | Mar. 1865 |
| 4000 | E. Gunnislake & S. Bedfd. (cop.) | 8 8 6 | ¾ | ⅝ ¾ | Aug. 1865 |
| 6145 | East Jane (sil.-ld.), Cardinham | 2 17 6 | — | | April, 1865 |
| 6000 | East Laxey (lead) [L. £3] | 2 0 0 | — | | July, 1864 |
| 1024 | E. Margaret (tin), Uny Lelant | 22 10 0 | — | | Feb. 1865 |
| 8000 | E. Polberro (tin) [L. £1] [4000 £1 pd. 4000 12s. 6d. pd.] | | | | Nov. 1864 |
| 3986 | E. Providence (tin), Uny Lel. | 4 11 9 | — | | April, 1865 |
| 5000 | East Tresavean | 0 10 0 | — | | May, 1865 |
| 6000 | East Snaefell (lead) [L. £3] | 2 0 0 | — | | Nov. 1864 |
| 5610 | East Seton (cop.), Camborne | 0 10 0 | — | | Dec. 1863 |
| 256 | East Tolgus (copper), Redruth | 92 0 0 | — | | July, 1865 |
| 1024 | E. Treskerby (cop.), Redruth | 11 13 6 | — | | June, 1865 |
| 1190 | E. Wheal Agar (cop.), St. Cleer | 12 17 0 | — | | Jan. 1865 |
| 1300 | E. Wheal Ellen (cop.) St. Agnes | 3 5 0 | — | | Dec. 1864 |
| 6000 | E. Wh. Florence (cop.), Calling. | 1 0 0 | — | | |
| 2048 | East Wheal Gryllis (tin, cop.) | 2 15 0 | — | | Jan. 1865 |
| 4000 | E. Wh. Russell, Tavis. [S.E.] | 10 8 0 | 3 | 2⅞ 3⅛ | June, 1865 |
| 6000 | East Wheal Vor (tin and cop.) | 5 0 0 | — | | April, 1864 |
| 6144 | Esther Und. (tin), Cardingham | 0 6 3 | — | | July, 1865 |
| 6000 | Fostescue Consols | 0 12 6 | — | | |
| 6000 | Furze Hill Wood Cons., Buckl. | 1 12 6 | — | | July, 1865 |
| 10000 | Fursdon (cop.), [L.] [5000 £1 10s. paid] | | — | | Mar. 1865 |
| 1026 | Garden, Morvah (copper) | 5 7 9 | — | | Aug. 1864 |
| 4096 | Garlidna Untd. (tin), Wendron | 4 15 0 | — | | Jan. 1865 |
| 4000 | Gawton (copper), Tavistock | 2 17 6 | — | 1¾ 2 | June, 1865 |
| 6000 | Gen. Min. Co. for Irel. (cop.) | 4 0 0 | — | | |
| 5000 | Glan Alun (lead), Mold [L.] | 1 0 0 | 2 | | Fully paid. |
| 30000 | Glasgow Caradon Con. (cp.) [L.] | 1 0 0 | — | | Fully paid. |
| 6000 | Godolphin Hill (tin), Breage | 1 1 0 | — | | June, 1865 |
| 2000 | Golch Hill (lead), Flintshire | 1 7 5 | — | | Feb. 1865 |
| 6144 | Gonamena (copper), St. Cleer. | 4 17 0 | — | | May, 1865 |
| 2000 | Goonzion (copper), St. Neot | 1 17 6 | — | | Dec. 1864 |
| 486 | Gramb. & St. Aub. (cp.) [S.E.] | 66 0 0 | — | | May, 1865 |
| 4100 | Great Brigan (cop.), Redruth. | 6 18 0 | — | | May, 1865 |
| 4096 | Great Caradon (cop.), St. Ive. | 2 18 0 | — | | April, 1865 |
| 10000 | Great Devon and Bedford [L.] | 2 5 0 | — | | July, 1865 |
| 3000 | Gt. East Lovell (tin), Helston | 1 0 0 | — | | |
| 5000 | Great North Downs (copper) | 4 8 0 | 2⅜ | 2 2¼ | May, 1865 |
| 12500 | Gt. No. Laxey (I. of Man) [L. £1] | 0 10 0 | 2 | 1⅞ 2 | Feb. 1865 |
| 6000 | Gt. Retallack (sil.-ld., blende) | 2 8 6 | — | | July, 1865 |
| 6000 | Great S. Chiverton (sil.-lead) | 0 16 0 | — | | July, 1865 |
| 2000 | Great Tregune Consols (cop.) | 0 5 0 | — | | |
| 13000 | Great West Chiverton (lead) | 1 0 0 | — | | June, 1864 |
| 3313 | Great Wheal Baddern (tin) | 7 17 6 | — | | June, 1864 |
| 6000 | Gt. Wh. Busy (cop., tin), Ken. | 14 9 6 | 3¼ | 3 3¼ | June, 1865 |
| 1798 | Gt. Wh. Fortune (tin), Breage | 22 12 0 | — | | June, 1865 |
| 3072 | Gt. Wh. Gryllis (tin, copper) | 1 7 6 | — | | July, 1865 |
| 10000 | Great Wh. Metal, Breage [L.] | 2 0 0 | — | | May, 1865 |
| 6400 | Green Hurth (lead) [L. £1] | 0 1 0 | — | | |
| 2500 | Grit and Stapeley (lead), [L.] | 10 0 0 | — | | July, 1864 |
| 4000 | Gryllis Wheal Florence (tin) | 1 2 6 | — | | July, 1865 |
| 6068 | Gwydyr Park Con., Llanrwst | 1 10 0 | — | | June, 1865 |
| 6000 | Hallenbeagle (copper) | 1 12 0 | 2⅜ | 2¼ 2⅜ | July, 1865 |
| 6400 | Harwood (ld.), Durham [L. £1] | 0 6 0 | — | | Sept. 1864 |
| 5000 | Havan (ld.), Cardigan [L. £5] | 4 5 0 | — | | July, 1864 |
| 7219 | Hawkmoor (tin, cop.) Calstock | 3 9 0 | — | | June, 1865 |
| 10000 | Hazel Grove (sil.-ld.) [L. £1] Flint | 0 7 6 | — | | |
| 5000 | Hendre (lead), Flint [L. £5] | 4 0 0 | — | | April, 1865 |
| 6000 | Hingston Down (cop.), [S.E.] | 5 10 6 | 4¼ | 3⅞ 4⅛ | Dec. 1863 |
| 6000 | Illogan (tin and copper) | 0 14 6 | — | | April, 1865 |
| 5000 | Kelly Bray (cop.), Callington | 5 7 6 | — | | June, 1865 |
| 96 | Kilmorey (lead) | 25 5 0 | — | | Feb. 1864 |
| 6000 | Lady Bertha (cop.) [S.E.] | 3 8 0 | 13s. | 8s. 10s. | July, 1865 |
| 4500 | Lanivet [L. £2] [1500 20s. pd.] | — | — | | June, 1865 |
| 3000 | Leawood (copper, lead) | 1 8 6 | — | | Aug. 1865 |
| 1019 | Leeds & St. Aubyn (tin, cop). | 18 13 4 | — | | Mar. 1865 |
| 963 | Lelant Cons. (tin), Uny Lelant | 35 0 0 | — | | Mar. 1863 |
| 4000 | Llantwit Vardre (coal), [L. £5] | 4 10 0 | — | | May, 1864 |
| 2000 | Long Rake (lead), Flint | 5 15 0 | — | | April, 1865 |
| 2000 | Lower Park (ld.), Denbigh [L.] | 3 11 0 | — | | Jan. 1864 |
| 6000 | Maudlin (copper), Lostwithiel | 4 7 0 | — | | May, 1865 |
| 4480 | Merllyn (lead), Flint | 4 1 6 | — | | June, 1864 |
| 3000 | Minera Western Boundary [L. £1] | 0 2 6 | — | | Sept. 1863 |
| 3000 | Mineral Bottom (lead) | 3 0 0 | — | | |
| 6000 | Molland (cop.), S. Moulton | 3 0 0 | — | | Nov. 1862 |
| 1024 | Nangiles (tin, copper), Kea | 21 5 0 | 11 | 8 10 | May, 1865 |
| 4000 | Nanteos (lead) [L. £1] | 0 10 0 | — | | Sept. 1864 |
| 512 | Nant Minera (lead), [L. £20] | 6 10 0 | — | | Jan. 1865 |
| 6400 | Nant-y-Iago (ld.), Merioneth | 3 17 6 | — | | May, 1863 |
| 6000 | New Clifford (cop.) [L. £4] | 1 5 0 | — | | Dec. 1864 |
| 10000 | New Concord (sil.-ld.) [L. £3] | 2 5 0 | — | | Mar. 1865 |
| 24000 | New Cornish [12000 £1 paid, 12000 12s. paid] | | | | Dec. 1864 |
| 6400 | N. Crow Hill (ld.), St. Stephen | 2 15 6 | — | | May, 1865 |
| 6000 | New East Birch Tor (tin) | 1 2 6 | 1⅛ | 1 1¼ | June, 1865 |
| 6514 | New E. Russell (cop.), Tavistk. | 0 9 0 | — | | Mar. 1865 |
| 6400 | Nether Hearth (lead), Dufton | 1 1 0 | — | | May, 1865 |
| 400 | New Hendra (tin, cop.), Breage | 5 11 0 | — | | Mar. 1865 |
| 6400 | New Pembroke (tin and cop.). | 0 14 6 | — | | July, 1865 |
| 1024 | New Rosewarne (cop.), Gwinear | 2 10 0 | 8 | | Dec. 1864 |
| 6000 | New S. Caradon (cop.), St. Cleer | 0 16 6 | — | | Dec. 1863 |
| 5775 | New Treleigh (cop.), Redruth | 4 0 0 | — | | April, 1865 |
| 960 | New Trevenen (tin), Wendron | 8 4 0 | — | | July 1865 |
| 470 | Newtownards Min. Co., Down | 50 0 0 | — | | |
| 1024 | New Wendron (tin), Wendron | 7 10 0 | — | | Dec. 1864 |
| 1024 | New Wh. Gryllis (tin and cop.) | 2 1 6 | — | | May, 1863 |
| 4096 | New Wheal Lovell (tin) | 1 1 0 | — | | Aug. 1865 |
| 15000 | New Wheal Martha (cop.) [L.] | 1 0 0 | — | | Fully paid. |
| 400 | New Wh. Seton (cop.), Camb. | 45 15 0 | 45 | | Aug. 1865 |
| 6000 | New Wh. Vor & Metal Utd. (tin) | 0 2 6 | — | | May, 1864 |
| 1024 | North Buller (cop.), Redruth | 27 10 6 | — | | Mar. 1865 |
| 6000 | North Chiverton (lead | 1 10 0 | — | | July, 1865 |
| 16000 | North Devon (sil.-ld.) [L. £1] | 0 13 0 | — | | Oct. 1863 |
| 5000 | N. Dolcoath (cop.), Camborne | 3 8 6 | — | | Mar. 1865 |
| 43000 | North Downs (cop.) Redruth | 3 16 4 | — | | July, 1865 |
| 42500 | North Frances (copper) | 4 2 6 | — | | Dec. 1864 |
| 1361 | N. Grambler (cop.), Redruth | 5 8 0 | — | | Aug. 1865 |
| 16000 | N. Hallenbeagle [8000 £1 pd., 8000 8s. 6d. pd.] | | | | July, 1863 |
| 6000 | North Jane (tin, silver-lead) | 2 10 6 | — | | June, 1865 |
| 2000 | N. Levant (tin, cop.), St. Just | 9 13 0 | — | | April, 1865 |

| Shares. | Mines. | Paid. | Last Pr. | Bus. done. | Last |
|---|---|---|---|---|---|
| 20000 | N. Minera (ld.) [15000 £1 pd., 5000 ⅞ pd.] | | 6s. | [illegible] | |
| 4000 | N. Phœnix (cop.) Linkinghorne | 4 4 0 | — | [illegible] | |
| 6400 | No. Pool (tin & cop.), Illogan. | 2 5 8 | — | | |
| 700 | N. Roskear (cop.), Camborne | 38 15 0 | — | | |
| 6144 | North Rosewarne (copper) | 1 0 0 | 12 | 12 12½ | |
| 2000 | No. Shepherd (lead), Newlyn. | 5 0 0 | — | | |
| 6000 | N. Wh. Basset (cop., tin) [S.E.] | 4 14 0 | 3¼ | 3¼ 4 | |
| 5610 | North Wh. Crofty (cop.) [S.E.] | 2 17 0 | 13s. | ⅝ 1 | |
| 5000 | No. Wh. Metal (tin), Breage | 1 0 0 | 1 | 1 1¼ | |
| 6144 | N. Wh. Robert, Samp. Spiney | 4 0 5 | — | | |
| 12288 | Okel Tor (cop.), Calstock | 2 3 10 | — | | |
| 9000 | Old Gunnislake (cop.) Calstock | 0 15 0 | — | | |
| 600 | Pant-y-Glien (slate) [L.] [500 £12 pd., 100 £20 pd.] | | | | |
| 6400 | Par Consols (copper) [S.E.] | 1 10 0 | — | | |
| 8465 | Pedn-an-drea (tin), Redruth. | 4 8 6 | — | | |
| 5000 | Pendeen Cons. (cop.), St. Just | 4 14 0 | — | | |
| 2000 | Penhale Wheal Vor (tin, cop.). | 2 0 0 | — | | |
| 5000 | Penhalls (tin), St. Agnes | 2 18 0 | 5⅛ | 4⅞ 5⅛ | |
| 512 | Penhallow Moor (silver-lead). | 7 0 0 | — | | |
| 6000 | Penrait (sil. ld.), Merion. [L.] | 2 7 0 | — | | |
| 6000 | Polhigey Moor (tin), Wendron | 1 18 0 | — | | |
| 12800 | Prince of Wales (tin), Calstock | 0 7 6 | — | | |
| 6000 | Prosper Uni. (tin, cp.), St. Hilary | 7 16 6 | — | ⅛ ¼ | |
| 12000 | Redmoor (cop., tin), Callington | 1 7 6 | — | | |
| 6000 | Roaring Water [L. £3] | 2 0 0 | — | | |
| 6000 | Reinnie Laxey (lead), [L. £6]. | 4 0 0 | — | | |
| 5000 | Rhafna (lead), Carnarv. [L. £1] | 0 11 0 | — | | |
| 6000 | Restriggian (iron), St. Wenn | — | — | | |
| 6000 | Roborough Down (cop.) [L. £3] | 2 10 0 | — | | |
| 3998 | Rosewarne Consols (copper) | 4 11 6 | | | |
| 3848 | Rosewarne United (cp., tin) | 3 16 11 | ⅝ | ¾ 1 | |
| 6000 | Roskear (copper), Camborne | 0 10 0 | 1⅝ | 3s. 5s. | |
| 700 | Roskearnowth (cop.), Camborne | 2 15 0 | — | | |
| 2000 | Scorrier Con. (tin, cp.), St. Agnes | 4 13 6 | — | | |
| 800 | Segienlas, Montgomery [L. £8] | 6 5 0 | — | | |
| 20000 | Snaefell (lead) Isle of Man [L. £1] | — | — | | |
| 3000 | Silver Rose (silver and lead) | — | — | | |
| 20000 | Sil. Vein, St. Winnow [15000 £1 pd., 5000 5s. pd.] | | | | |
| 4096 | Sithney Wheal Metal (tin) | 3 17 6 | — | | |
| 12000 | Sortridge Cons. (cop.) [S.E.]. | 1 6 6 | — | | |
| 6000 | S. Alfred Cons. (cop.), Phillack | 1 0 0 | — | | |
| 512 | South Basset (cop.), Gwennap | 18 10 8 | — | | |
| 100 | South Bryn Gwiog (lead) | 7 0 0 | — | | |
| 6000 | So. Buller (copper), Gwennap | 0 14 0 | — | | |
| 1024 | South Callington (silver-lead) | 5 0 0 | 2¼ | 1⅞ 2¼ | |
| 4096 | S. Caradon Wh. Hooper (cop.) | 4 19 0 | — | | |
| 6000 | South Carn Brea (cop.) | 8 1 6 | — | | |
| 6138 | S. Condurrow (tin, cp.), Camb. | 3 8 0 | 3¼ | 3⅛ 3¼ | |
| 2283 | Sou. Crenver (cop.), Crowan. | 12 9 0 | — | | |
| 6000 | South Darren (ld.) [L. £3½] | 3 6 6 | — | | |
| 6000 | S. Dolcoath & Carnarthen Con. | 2 14 6 | — | | |
| 5000 | So. Exmouth (ld.), Christow | 2 11 0 | — | | |
| 5000 | S. Foxdale (ld.) I. of Man [L. £5] | 3 10 0 | — | | |
| 2000 | South Gorland (cop.), St. Day | 4 10 0 | — | | |
| 2000 | South Gryllis (copper) [L.] | 10 0 0 | — | | |
| 1024 | S. Herodsfoot (lead) Liskeard. | 6 2 6 | — | | |
| 96 | South Kilmorey (lead) | 23 10 0 | — | | |
| 2000 | South Lovell (tin), Wendron | 3 0 0 | 2¼ | 1⅞ 2¼ | |
| 4000 | S. Minera (lead) [L. £5¼ | 4 10 0 | — | | |
| 96 | South Pant-y-Gof (lead) | 27 0 0 | — | | |
| 5325 | So. Phœnix (cop.) Linkin. | 7 1 4 | — | | |
| 937 | So. Wh. Crofty (cop.), Illogan | 24 10 10 | — | | |
| 4000 | So. Wh. Kitty (tin), St. Agnes | 1 0 0 | — | | |
| 400 | So. Wh. Seton (cop.), Camborne | 61 13 0 | — | 2 3 | |
| 794 | Spearne Cons. (tin), St. Just. | 6 12 0 | — | | |
| 10000 | St. Cuthbert Lead Smelt. [L.] | 5 0 0 | — | | |
| 40000 | St. David's (gold) [L. £2 10s.] | 1 12 6 | — | | |
| 760 | St. Ives Wheal Allen (tin) | 16 7 0 | — | | |
| 8000 | St. Just Untd. (tin) [L. 2½]. | 2 10 0 | — | | |
| 6000 | St. Just Consols (tin) [L. £1] | 1 0 0 | — | | |
| 7000 | Stiperstones (ld.), Salop [L. £10] | 2 10 0 | — | | |
| 920 | Stray Park (cop., tin) [S.E.]. | 36 11 6 | 11 | 10 12 | |
| 5000 | Swincombe Vale (tin) [L. £1] | 0 12 6 | — | | |
| 3500 | Tin Hill (tin), St. Austell | 1 2 0 | — | | |
| 6000 | Tolcarne (cop.), Camborne | 2 7 0 | — | | |
| 6000 | Tolvadden (copper), Marazion | 1 0 0 | ¼ | 4s. 6s. | |
| 50000 | Trelogan (lead), near Holywell | 10 0 0 | — | | |
| 1024 | Trencrom (tin), Uny Lelant. | 13 6 8 | — | | |
| 501 | Tresavean and Trethurrap | 14 10 0 | — | | |
| 3105 | Tresellyn and Scaddick Cons. | 1 12 6 | — | | |
| 4440 | Trevenen and Tremenheere | 7 11 0 | — | | |
| 6000 | Trevesa and Brea [L. £2] | 0 4 0 | — | | |
| 4096 | Treweatha (sil.-ld.), Menhen. | 5 17 0 | — | | |
| 1943 | Treworlis (tin), Wendron | 8 2 10 | — | | |
| 12000 | Twelve Apostles Amal. (ld.) | 1 0 0 | — | | |
| 6400 | Tyne Head (tin & cop. [L. £1] | 0 17 0 | — | | |
| 20000 | Vale of Towy (lead), Carmar. | 0 17 6 | — | | |
| 10000 | Walkham & Poldice (tin) [L.] | 1 0 0 | — | | |
| 1024 | Wendron Cons. (tin), Wendron | 21 13 10 | — | | |
| 4000 | Wentnor [L. £2½] (lead) | 2 4 6 | — | | |
| 3000 | Wentworth Consols (lead) | 3 0 0 | 5⅛ | | |
| 60000 | Welsh Gold, Dolgelly [L.] | 1 0 0 | — | | |
| 20000 | West Beam (tin) [L.] | 1 0 0 | — | | |
| 60 | West Burton Gill (lead) | 50 0 0 | — | | |
| 40000 | West Clogau (gold), Merioneth | 1 0 0 | — | | |
| 1000 | West Cwm Erfin (lead) [L] | 2 0 0 | — | | |
| 1218 | W. Condurrow (tin, cop.), Cam. | 9 11 3 | — | | |
| 3500 | W. Great Work (tin), Germoe | 2 8 1 | — | | |
| 6000 | W. Gryllis (tin), Perranuthnoe | 0 4 0 | — | | |
| 12000 | W. Maria & Fortescue, Lamerton | 1 4 6 | — | | |
| 500 | West Nanty (lead) [L.] | 10 0 0 | — | | |
| 19000 | West Par Con. (cp.) St. Blazey | 2 17 0 | — | | |
| 1000 | W. Rose Down (cop.), Caradon | 14 17 6 | — | | |
| 256 | West Sharp Tor (cp.) Rillaton. | 178 0 0 | — | | |
| 1056 | West Stray Park (cop.), Camb. | 11 2 6 | — | | |
| 512 | West Tolgus (cop.), Redruth. | 44 0 0 | — | | |
| 512 | West Wh. Frances (cop.), Illo. | 98 5 0 | — | | |
| 9017 | West Wheal Jane (tin, &c.) | 3 19 6 | — | | |
| 5000 | West Wh. Kitty (tin), St. Agnes | 0 7 0 | — | | |
| 10000 | W. Wh. Martha (cp. & sil.) [L. £2] | 1 5 0 | — | | |
| 4096 | West Wheal Vor (tin), Helston | 1 10 0 | — | | |
| 6000 | Wheal Agar (copper), Illogan | 5 18 0 | — | | |
| 5790 | Wh. Arthur (cop.), Calstock. | 4 15 6 | — | | |
| 512 | Wheal Buller, Redruth [S.E.] | 16 0 0 | 25 | 27½ 28½ | |
| 1000 | Wheal Curtis (cop.), Crowan. | 12 18 4 | — | | |
| 6000 | Wheal Crebor (cop.), Tavistock | 1 17 6 | 1⅝ | 1½ 1⅝ | |
| 6000 | Wheal Crofty (cop.), Illogan | 1 9 6 | — | | |
| 6144 | Wh. Damsel (cp., tin), Gwennap | 2 15 0 | — | | |
| 4096 | Wh. Edward (cop.), Calstock. | 8 19 6 | — | | |
| 894 | Wheal Emily Henrietta (cop.) | 14 0 0 | — | | |
| 4000 | Wh. Emma (cp) Buckfastleigh | 3 19 0 | — | | |
| 1024 | Wh. Exmouth (ld.), Chrisow | — | — | | |
| 2000 | Wheal Falmouth & Sperries. | 7 0 0 | — | | |
| 6000 | Wh. Grenville (copper) [S.E.] | 9 0 6 | 2 | 1⅞ 2⅛ | |
| 1024 | Wh. Gryllis (tin), Perranuth. | 8 1 0 | — | | |
| 5120 | Wh. Harriett (cop.), Camborne | 4 17 6 | — | | |
| 5350 | Wheal Hartley (cop.), Gwinear | 2 3 8 | — | | |
| 2340 | Wheal Hearle (tin), St. Just. | 3 12 6 | — | | |
| 4096 | Wheal Hope (sil.-ld.), Perran | 2 18 9 | — | | |
| 6000 | Wheal Ida (sil.-lead), St. Ive. | 0 12 0 | — | | |
| 1000 | Wheal Lovell (tin), Wendron | 9 0 0 | 2⅛ | | |
| 4800 | Wh. Ludcott and Wrey (lead) | 4 8 8 | — | | |
| 968 | Wheal Margery (tin, copper) | 20 16 10 | — | | |
| 1000 | Wh. Mary Hutchings (Plymp.) | 0 18 6 | — | | |
| 6000 | Wh. Norris (tin, cp.), St. Cleer | 4 0 0 | — | | |
| 1024 | Wheal Par (tin), St. Blazey | 7 16 0 | — | | |
| 6000 | Wh. Pollard (cop.), St. Neot's | 3 3 6 | — | | |
| 1024 | Wheal Polmear (copper) | 7 13 9 | — | | |
| 970 | Wh. Prosper (cp., tin), Breage | 14 18 10 | — | | |
| 25000 | Wh. Prudence St. Ag. [L. £1] | 1 0 0 | — | | |
| 240 | Wh. Reeth (tin), Uny Lelant | 98 10 0 | — | | |
| 2000 | Wheal Rose (copper), Scorrier. | — | 22 | 20 22 | |
| 1500 | Wheal Sarah (tin), Lanivet | 0 13 8 | — | | |
| 4096 | Wheal Sidney (tin), Plympton | 5 3 1 | — | | |
| 2048 | Wh. Sithney & Carnmeal Uni. | 14 17 6 | — | | |
| 6000 | Wheal Sparnon (copper) | 1 8 0 | — | | |
| 1920 | Wh. Trannack (cop.), Sithney | 1 12 3 | — | | |
| 1200 | Wh. Trevenna (tin, cop.) [L. £10] | 6 0 0 | — | | |
| 5000 | Wheal Truscott | 1 10 0 | — | | |
| 6000 | Wheal Union (cop.), Redruth | 4 18 6 | — | | |
| 6000 | Wh. Unity (cop., tin), Gwinear | 4 6 0 | — | | |
| 4096 | Wh. Uny (tin, cop.), Redruth | 9 17 0 | 2⅛ | | |
| 4500 | Wheal Vlow (tin) | 1 5 0 | — | | |

## MISCELLANEOUS.

| Shares. | Company | Paid. | Last Pr. | Bus. done. |
|---|---|---|---|---|
| 25000 | Bolckow, Vaughan [L. £100] | 17 10 0 | 21½ | 21 22 |
| 100000 | Credit Fon. & Mob. Engl. [L. £20] | 5 0 0 | 8½ | 8⅜ 8⅝ |
| 80000 | Ebbw Vale Iron Co. [L. £50] | 15 0 0 | 13¼ | 13 13¼ |
| 25000 | Fairbairn Engineering [L. £10] | 5 0 0 | 6⅛ | 5⅝ 6⅛ |
| 250000 | Gen. Cred. & Fin. Lond. [L. £20] | 4 0 0 | 5⅞ | 6 6⅛ |
| 20000 | General Steam Navigation | 14 0 0 | 23 | 25 27 |
| 100000 | Imperial Mercan. Cred. [L. £50] | 5 0 0 | 7 | 6⅞ 7⅛ |
| 150000 | Inter. Financial Soc. [L. £20] | 5 0 0 | 6⅛ | 6⅛ 6⅜ |
| 80000 | Joint-Stock Discount [L. £25] | 10 0 0 | 9 | 9 |
| 5000 | London & Glas. Engl. [L. £50] | 15 0 0 | 6 | |

*,* Those mines with [S.E.] appended have been admitted on the Stock Exchange. Those mines with [L.] appended have been
Limited Liability.

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*,* Our object being to make the Share List correct, we earnestly call upon all who have the power, to aid us, by forwarding any
tion which may, from time to time, come under their notice. To shareholders, as well as those officially connected with the mines, we
information. Reports from mines—in fact, mining intelligence of every description, forwarded to our office, will meet ready attention.

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